2009 University of Florida Research and Extension and Florida A&M University Extension Combined Plan of Work

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I. Plan Overview

1. Brief Summary about Plan Of Work

Florida is a unique tropical state whose climate draws thousands of people to relocate here each year. The population has now reached almost 20 million. Because of the climate and year-round activities Florida also attracts nearly 88 million tourists annually. Both populations are extremely diverse in age, ethnic background and economic level which can lead to complex issues and barriers that must be addressed.

Florida is a major gateway between the world and the rest of the United States. The mild climate and huge volume of imports make Florida susceptible to many uninvited diseases, pests, plants and other elements that can be detrimental to Florida's environment and quality of life. The Florida land grant college, the Institute of Food and Agricultural Sciences (IFAS) works hard to monitor possible hazards that could become potential problems far into the future. Teaching, Research and Extension work together to monitor problems identified in other parts of the world that could eventually become issues here. They search for solutions and methods of communication that keep us on the cutting edge from the initial identification of a potential problem to the ultimate outcome of finding the best management practices that will protect Florida's people and environment.

IFAS has also developed multiple methods of identifying critical need areas that already exist within the state. Grassroots, strategic planning, the use of advisory committees, and formal meetings with industry are just a few of the ways that IFAS identifies the needs and issues that must be solved. As the state becomes more populated and complex, the structure of the land grant college has been modified to meet these needs. It is through the close interaction between UF/IFAS, the 67 counties, and the networking through multi-state and integrated collaborations worldwide that best management practices are identified, tested and then provided as solutions to problems Florida citizens deal with on a daily basis.

Florida is a unique and diverse agricultural state. The Sunshine State, with over 280 different crops being produced, is second only to California in agricultural diversity. This diversity assures that agriculture provides stability to Florida's economy. We consistently rank in the top 10 states nationally with farm cash receipts. Our farmers by and large do not benefit from Federal Farm Programs that raise other states' farm cash receipts. Florida's 44,000 farms are primarily family farms that manage more than 10 million acres of land. This, combined with commercial forestland, accounts for about 72 percent of the state's 35 million acres that are managed as some form of agricultural and natural resource enterprise.

Farmers operate in a classic supply and demand market and are more price-takers than price-makers. Even though agriculture has a $54 billion impact on Florida's economy, there are sectors that have not prospered. In general, Florida's farmers were not participants in the economic boom of the 1990's. The economic pressure on our farmers has caused them to turn to IFAS for help in building profitability back into the agricultural operations. IFAS and FAMUs 1890 landgrant college serves as the research and development arm for this diverse and broad-based industry. Small, limited resources and new farmers just establishing a farm learn about and can utilize the same technology that larger farmers utilize. This access to research and technology transfer through the extension function is because of IFAS, FAMU and their land grant mission (Cockrell, 2003, Florida Farm Bureau, FAIR Report).

Institute of Food and Agricultural Science

Florida's governing body for higher education created the Institute of Food and Agricultural Sciences in April 1964, by reorganizing UFs College of Agriculture, School of Forestry, Agricultural Experiment Station, and the Cooperative Extension Service into a single unit. Today, UF/IFAS includes Extension in each of the state's 67 counties, the Agriculture Experiment Station with 13 research and education centers located throughout Florida, the College of Agricultural and Life Sciences, the School of Forest Resources and Conservation, the Center for Tropical Agriculture, portions of the College of Veterinary Medicine, the Florida Sea Grant Program and the International Program for Food, Agriculture and Natural Resources.

UF/IFAS Research and the Florida Cooperative Extension (comprised of UF/IFAS Extension and FAMU/CESTA Extension) provide Floridians with science-based research and life-long learning programs in cooperation with county and state governments, and the United States Department of Agriculture.

Extension

From its inception, as intended, the Florida Cooperative Extension has extended research-based knowledge to communities across the state to solve problems. Extension continues to analyze and synthesize the results of university research and put that information in the hands of the public to improve the quality of life in Florida and does this through a variety of mechanisms and relationships. The most obvious of these is the continued partnership with county governments and the shared responsibility with counties to keep in place viable educational programs at the local level. Local needs often drive Extension's program and these needs frequently require resources from disciplines beyond those encompassed in Extension's university home in the Institute of Food and Agricultural Sciences.

Extension in Florida is defined by the cooperative efforts of Florida A&M University (FAMU) and the University of Florida (UF). The universities operate under a memorandum of agreement which creates the "Center for Coordinated Agricultural Programs (CCAP). This agreement encompasses research, teaching and extension. The CCAP council meets annually to discuss project funding and other matters related to academic programs. Outside of this agreement FAMU extension and UF extension conduct programs in counties under the same parameters as outlined in the state statute 1004.37. There is no funding mechanism in the state university system to allocate funding to faculty with contact hours with non-enrolled or informal students.

The organizational structure of Extension is complex but very effective in engendering support from its most important partners. The core of extension program remains as its original conception. It is based on the delivery of university based research to the citizens of the state of Florida. The responsibility of the Dean for Extension is to coordinate the activities of the Extension faculty to engage in the production and delivery of educational programs. In the past, Florida has done this through 83 design teams that supported "state major programs (SMPs)', in-service training, publications, collaborative programming and county operations. Following a long-range strategic planning effort in 2003-2004 and an external review of the Extension organizational structure, Florida Extension has moved towards a more focused structure composed of 7 major goals that more clearly identifies the formal ties between research and Extension and is based on prioritizing the needs of the stakeholders at all levels including grassroots. These seven teams have been developed around the goals of CSREES, the University of Florida, and IFAS and FAMU/Extension. Membership on the teams include both UF/IFAS and FAMU faculty and staff, as well as stakeholders and others who can provide knowledge needed to problem solve in the areas of focus.

The administrative team that manages this effort consists of the State Extension Dean and Director, the 1890 Administrator, 5 state program leaders, 5 district directors, County Extension Directors, the Program Development and Evaluation Center and other support personnel.

The seven major goal areas include:

- To enhance and maintain agricultural and food systems
- To maintain and enhance Florida's environment
- To develop responsible and productive youth through 4-H and other youth programs
- To create and maintain Florida friendly landscapes: the smart way to grow
- To assist individuals and families to achieve economic well-being and life quality
- To provide support leading to healthy communities
- To promote professional development activities designed to enhance organizational efficiency and effectiveness

Each of these goal areas include three to five focus teams and multiple action teams whose responsibility is to identify (or use problems previously identified) and solve problems in these specific areas of need related to their focus. To this purpose these focus teams are closely integrated with research faculty, and other entities in the problem solving process and the management of change. Goal/Focus teams have been empowered by administration to not only find solutions but to develop state-wide initiatives that lead to better communication and accountability of best management practices and outcomes and to interact with faculty across the state dealing with problems related to individual focus teams.

Extension has actively tried to serve the state by utilizing the resources of other colleges and schools on the campus as well as nationally and internationally to provide educational programs to the public. Faculty are encouraged to become involved in both multi-state and integrated activities with research to improve programs while reducing the need for fiscal and human resources.

Extension has developed a website, http://solutionsforyourlife.com, to provide these solutions 24/7 for Florida's clientele. For additional information, see http://extadmin.ifas.ufl.edu/

Research

The UF/IFAS research mission is to invent, discover and develop knowledge to enhance the people and economy of Florida. Faculty members pursue fundamental and applied research that furthers understanding of natural and human systems. Research is supported by state and federal appropriated funds and supplemented by grants and contracts. IFAS research expenditures in the 2002-2003 year exceeded $129 million.

The Florida Agricultural Experiment Station administers and supports research programs in UF/IFAS. The research program was created by federal legislation known as the Hatch Act, a follow-up to the Morrill Act that established US land-grant universities. The ultimate achievement of research is its contribution of new knowledge to the welfare of people. Within the UF/IFAS research organization the scope of research can be interpreted to include a broad range of activities that are related to agriculture and natural resources; the interrelationships among all people as suppliers of inputs and users of these products; the effects of agricultural and natural resource industries on people through environmental interfaces; and the social welfare of people as consumers.

The research programs support approximately 350 full-time equivalent faculty members in 20 academic departments on UFs

Gainesville campus and at 13 research and education centers around the state many of them holding joint appointments in Extension and Teaching. There are more than 700 active IFAS research projects across the state. There is no formula funding within the state university system for this research component.

For additional information, see http://research.ifas.ufl.edu/

Research and Education Centers

There are 13 Research and Education Centers in the state. These are the facilities that house state faculty (research, teaching and extension) and some multi-county agents.

Citrus Research and Education Center
Everglades Research and Education Center
Florida Medical Entomology Lab
Ft. Lauderdale Research and Education Center
Gulf Coast Research and Education Center
Indian River Research and Education Center
Mid-Florida Research and Education Center
North Florida Research and Education Center
Range Cattle Research and Education Center
Southwest Florida Research and Education Center
Subtropical Agricultural Research Station
Tropical Research and Education Center
West Florida Research and Education Center

UF Departments made up of Research, Teaching And Extension Faculty include:
Agricultural and Biological Engineering
Agricultural Education and Communication
Agronomy
Animal Sciences
Entomology and Nematology
Environmental Horticulture
Family, Youth, and Community Sciences
Fisheries and Aquatic Sciences
Food and Resource Economics
Food Science and Human Nutrition
School of Forest Resources and Conservation
University of Florida Herbarium
Horticultural Sciences
Microbiology and Cell Science
Plant Pathology
Plant Molecular and Cellular Biology
Soil and Water Science
Statistics
Veterinary Medicine
Wildlife Ecology and Conservation

Recognized Centers of Excellence
Agricultural Law Center
Center for Aquatic and Invasive Plants
Interdisciplinary Center for Biotechnical Research
Center for Cooperative Agricultural Programs
Energy Extension Service
Florida Organics Recycling Center for Excellence
Florida Sea Grant
Center for Distribution and Retailing
International Agricultural Trade and Policy Center

Center for Nutritional Sciences
Center for Organic Agriculture
Center for Remote Sensing
Center for Renewable Chemicals and Fuels
The Center for Subtropical Agroforestry
Center for Tropical Agriculture
Tropical and Subtropical Agriculture Research (T-STAR)
UF Juice and Beverage Center

CountyOperations

Florida Extension has divided the state's 67 counties into five geographic Extension Districts. A "District Extension Director, (DED)" is responsible for an average of 70+ county extension faculty, their duties include hiring, assisting in programming and evaluation for all County Extension Faculty in each respective district. DEDs work with County Extension Directors (CEDs) and county agencies, commodity groups and local government relations. In addition DEDs take on leadership roles in statewide programming including topics of Internationalizing Extension, Information Technology, Natural Resource programming, Community Development programming, Leadership Development and Local Government Relations. Two of the DEDs are located on campus; three are housed at UF IFAS Research and Education Centers (RECs) in the Northwest, South Central and South. The DED's work closely with the Extension Program Leaders, UF IFAS Department Chairs and REC Directors, their immediate supervisor is the Associate Dean for Extension.

The Board of County Commissioners (BOCCs), administrators, managers, coordinators and clerks are all critical partners with Florida Cooperative Extension as they make recommendations and decisions related to the local extension financial contribution. In fiscal year (FY) 2006, local finances to fund extension in Florida amounted to $33.5 million (excluding the value of office space and facilities) and show the importance Florida counties place on the existence of the Florida land-grant college at the grassroots level. FY 2002 represented the first time that county government provided the greatest share of operating revenue of the three (federal, state, local) financial partners. There are 379 county faculty positions in the state. Of these 302 are joint paid (state or grant) (60% state / 40% county on average). County Extension Faculty receive paychecks from UF and from County Government, this process gives the Counties an increased ownership of these positions. In 2006, seventy-two county positions were 100% county paid. In many instances, county government has agreed to fully fund positions until such time that the University can provide the resources to pay a percentage. Approximately 26 joint positions are vacant as of this writing, due to normal retirements and resignations, each year it is becoming increasingly difficult to recruit qualified candidates to fill open positions. Starting salaries for new faculty are among the highest in the nation, county extension faculty are eligible for promotion that parallels the UF tenure and promotion system. In Florida there is no state mandated relationship between county government and the University to operate an Extension program in the respective counties. The Florida Statute sets forth that each county must annually determine the extent of participation in Extension programs. There is also no mandated formula between the University and counties with regard to staffing levels in county offices, although 42 of the counties operate under a formal memorandum of understanding (MOU). The legislation does state that county agents who are jointly paid for by the state are officially employees of the university. Every other aspect of the relationship between the University and the Counties is a matter of discussion and mutual agreement

Program Areas

Agriculture and Horticulture

Commercial Agricultural and Horticultural Programs: Florida has 42,500 commercial farms, utilizing 10 million acres. Florida producers continue to provide a wide array of agricultural products that are safe and dependable. Due to Florida's diversity in climatic conditions, ranging from tropical in the South to temperate in the North, and soil types (7 soil types), more than 250 commodities are produced. In 2005, Florida ranked 10th in the nation with total cash receipts of over $6.9 billion. Florida ranks 1st in citrus (oranges, grapefruit, and tangerines), snap beans, fresh market tomatoes, cucumbers, squash, peppers, and watermelons; 2nd in greenhouse and nursery products, sweet corn, and strawberries and 4th in honey production.

Florida producers utilize a little more than 10 million or about 30% of the state's 35 million acres for agriculture production. Commercial forests account for about 37% of the states acreage, national and state forests account for about 10%, and urban/suburban/industrial account for the remaining 22.4%. Of the 42,500 commercial farms, 6300 had sales exceeding $100,000. The average farm size was a little less than 235 acres. Florida is the 11th leading state in net farm income.The total value in Florida as of 2006 was a little less than $100 million dollars.

Obviously as the population continues to increase there will be continued stress on natural resources. Demands for water in

some counties may well exceed local water resource availabilities. Continued urban growth will force traditional agricultural and forestry lands to be rezoned for urban uses. Land-extensive agriculture will be replaced in part by high-value specialty fruits, vegetables and nursery products. Agricultural sectors will continue to feel impacts of emerging product forms; shifting consumer preferences; heightened environmental, health and safety concerns; and changing lifestyles. Alternative crops, value-added products, global competition, new processing technologies, and biotechnology will stimulate change and increase opportunities for growth.

Most farms in Florida are family owned and operated with the exception of sugarcane. The present value of field crops is in excess of $189 million (corn, cotton, peanut, soybean, tobacco, wheat, and hay). Sugarcane has a receipt value greater than $432 million.

As of January 1, 2006 there were 1.71 million head of cattle on farms and ranches in Florida, including 926,000 head of beef cows and 137,000 head of milk cows. Florida ranked 9th nationwide in the number of chickens on farms in the year 2004. Florida's poultry farmers maintained an average of 11.3 million layers and produced almost 78.5 million broilers. Florida ranked 1st in total foliage sold with sales of 476 million. The total value of our nursery and greenhouse ornamental industry was $3 billion. Total value including landscape industries and retail industries was $15 billion.

In addition, there are numerous small acreages of specialty and minor crops.

Urban Horticultural Programs: The current population of Florida is just under 17 million according to the 2002 census. Continued growth will alter and stress our agricultural and natural resource industries. Demands for water in some counties may well exceed local water resource availability. As a result, UF/IFAS/Extension has a commitment to urban horticultural programs. The programs have a tremendous amount of diversity.

Master Gardener Programs: Since 1979, Cooperative Extension agents in Florida counties have maximized resources using a "learn and return" program developed in Washington: the Florida Master Gardener Program. By providing education-based instruction methods incorporated with the latest scientific research, the program capitalizes on the desire of Florida citizens to learn more about horticulture in exchange for a predetermined number of volunteer hours returned to the individual county.

Florida Master Gardeners are University of Florida-trained volunteer teachers. Master Gardeners provide research-based information to Floridians about gardening-America's most popular pastime. Their information about planning and maintaining urban, suburban, and rural landscapes emphasizes environmental stewardship.

The state does not require Florida counties to have the program. Rather, each individual county extension office determines the focus and structure of the program. The volunteers execute a variety of outreach tasks as determined by the program leader (usually the consumer horticultural agent). Duties include: answering horticultural questions over the phone, in person or through the media; participating in public service projects; giving educational programs; supporting youth activities, performing soil sample evaluations and assisting in field research. The ultimate end to all these activities is to extend the vision of the UF/IFAS - protecting and sustaining natural resources and environmental systems, enhancing the development of human resources, and improving the quality of human life through the development of knowledge in agriculture, human and natural resources and making that knowledge accessible.

During 2006, Florida Master Gardener Volunteers assisted horticulture agents in developing and promoting noncommercial horticulture ultimately increasing environmental action and awareness in 52 counties. Statewide more than 3,765 volunteers contributed 3,396,694 hours to local county horticulture extension educational programs providing $7,155,566 worth of services to citizens of Florida.

FloridaYard and Neighborhoods Program (FYN): The FYN Program was developed to address serious problems of pollution and disappearing habitats by enlisting homeowners in the battle to save our natural environment. This program provides special educational and outreach activities directed at the community to help residents reduce pollution and enhance their environment by improving home and landscape management and is funded by the UF/IFAS/ Extension, United State Department of Agriculture, the Water Management Districts, the National Estuary Program, Environmental Protection Agency, The Florida Department of Environmental Protection, Homeowner Associations, and city and county governments. The objectives of the program are to reduce storm water runoff, decrease non-point source pollution, conserve, water, enhance wildlife habitat, and create beautiful landscapes. Currently, 43 counties have active programs. These programs involve individual homeowners, homeowner associations, builders, landscapers, and condominium associations.

In addition to the above programs, urban horticultural agents are also involved with programs such as 'Build Green and Profit', Hurricane Preparedness and Disaster Management, and Botanical Gardens.

Major Issues:

•The tremendous diversity of clientele, commodities, size of operation, and sophistication of operations and producers within the state.

•Perception of 'us versus them' (ag. vs. urban) yet some if not all of the issues pertaining to the program area overlap: water

quality, quantity, allocation; pest management (plant, animal, and human); urban rural interface and land-use issues; global competitiveness; food safety, quality and technologies; and public policy.

•Rural/urban land-use issues and Florida's sustainability with respect to agriculture and its natural resources and associated industries.

•With the high volume of fresh market fruits and vegetables, food safety issues are a major concern.

•Economic viability is a major concern for producers locally and within the global community.

•Water quality and quantity is one of the main issues facing Florida producers. The incorporation and adoption of best management practices by all agricultural producers insures water quality and quantity.

•The adoptions of best management practices for the green industries including ornamentals, landscape design and maintenance industries, and municipalities. The use of science based research by local and state agencies in establishing rules will be critical.

•Support for programs comes from external sources that may or may not provide support for the programs of highest priority.

•Local, regional or state-wide programming. How do we effectively interface the expertise available at a specific locale or region to meet statewide needs and vice versa?

Family and Consumer Sciences

Family and Consumer Sciences Extension programs are designed to empower individuals, families and communities to solve problems and address issues related to quality of life in Florida and focus on a broad spectrum of issues affecting Floridians that can be addressed through educational programs.

The Family and Consumer County faculty represent 26% of all Florida county faculty. Currently there are 77 FTEs at the county level devoted to programming in FCS. At the state level the situation is quite different since state specialists with FCS background only represent seven percent of the state specialists. Currently there are 5.3 FTEs at the state level who provide leadership and support to the major programs in FCS.

Challenges for the Future

•Inadequate FTE allocation at the state and county level to lead and support program needs in each program area within FCS. Limited visibility for Family and Consumer Science Extension Programs.

•To meet the needs of Florida's diverse and rapidly growing population, FCS faculty target many of their programs to ethnically and culturally diverse persons, those with limited resources, and other vulnerable populations such as the elderly and very young children. These groups are under-represented when it comes to communicating with decision makers

•In difficult economic times there is a very limited budget to support programming. Program growth occurs by faculty being successful in obtaining grant funding to enhance development and implementation of FCS programs.

•Lack of understanding and support for FCS programs by both internal and external groups.

FloridaSeaGrant Extension (MARINE & COASTAL PROGRAMS)

Florida is a coastal state full of opportunities and challenges. Florida has a longer linear coastline (1,350 miles) than all the other Atlantic states combined from Georgia to Maine. Within its over 8,000 miles of tidal shoreline, there is a wide diversity of living and non-living marine resources unmatched by any in the United States. It has both temperate and tropical ecosystems, and is the only state in North America with a shallow water marine ecosystem containing mangroves, sea grasses and coral reefs.

Florida's marine and coastal educational programs are delivered through Florida Sea Grant Extension (FSGE). Major funding is from the National Oceanic and Atmospheric Administration's National Sea Grant College Program. This funding is augmented by state and county support. Programmatic overview is through the Assistant Director of Extension with the Florida Sea Grant Program. Administratively, county-based agents report through their respective county extension directors and district extension directors. On-campus specialists report through their respective department chairs.

Challenges for the Future

•Key marine/coastal issues in Florida not being addressed due to fact we do not have state specialist coverage critical content areas or due to fact we do not have coverage by county faculty in key geographic areas

•Pressure to compete for more & more grant dollars to supplement base programs. (This competition is intensifying, even for Sea Grant funds that are supposed to be allocated to the individual states). Faculty are also facing this issue; result is more time is being spent on grant development and management vs. program delivery.

•Population increases will continue to place stress on marine and coastal resources, critical habitat, and land/water interface.

Natural Resource Extension Programs

Florida has 38.2 million acres of land area with 11 million in land and water conservation, 2 million acres in open water not in conservation areas, 6 million acres in urban development, and 19.5 million acres in agriculture, open space and undeveloped lands. If Florida's population doubles by 2060, as projected, this will cause a dramatic shift in land use patterns statewide, impacting our natural resources.

Florida's natural resource issues are addressed through campus-based specialists and county faculty, most of whom have partial assignments in the natural resource area. Programmatic overview is through the Associate Extension Dean for Environmental and Natural Resources Programs. Administratively, county-based agents report through their respective county extension directors and district extension directors. On-campus specialists report through their respective department chairs.

Challenges for the Future

- Population increases will continue to place stress on natural resources including the land, native plants and wildlife.
- Demands for water in some counties may well exceed water resource availabilities.
- Continued growth will force traditional agricultural and forestry lands to be converted for residential use.

Florida4-H Youth Development Program

The mission of the UF/IFAS Florida 4-H program is to create supportive environments for diverse youth and adults to reach their fullest potential.

In 2007 the Florida 4-H program involved 234,098 young people ages 5-18 last year. 4-H community clubs involved 26,063 youth. Camping programs involved 3,150 youth. Special interest groups involved 27,340 youth, while school enrichment programs touched the lives of 221,701youth. Individual 4-H project study enrolled 1,115 youth and 1,864 youth participated in school age child care and instructional television programs.

Thirty-six percent of youth impacted by Florida 4-H programs last year were from minority racial or ethnic groups (20.4 % African-American, 0.6% American Indian, 15 % Hispanic, and 1.4 % Asian). A slight increase in 4-H membership occurred in farm and towns this past year. Youth in 4-H lived on farms (from 2.6 % to 3.8%), in towns under 10,000 and in open country (from 20.9 % to 24.3%), in towns and cities of 10,000-50,000 residents (28.9%), in suburbs (from 8% to 17.8%) and in central cities (from 24.7 % to 25.2%). Nearly 75 percent of young people impacted by 4-H in Florida last year were in grades K-5. Middle school and high school youth made up 25.3%.

4-H programs remain strong at the county level in extension offices, particularly in those with retention of 4-H agents for three or more years. Nineteen 4-H agents are 100% county paid. Over one -half of 4-H agents in the field have less than 5 years of experience. Limited youth development staffing at the state level has minimized ability to provide in-service training and created gaps in program support for club, program and volunteer management systems. Faculty program support is available at the state level for environmental education, animal science, teen leadership and service learning, and individual and family resource programs.

Traditional 4-H program areas remain strong, although project areas have diversified substantially. UF specialists are instrumental in assisting the Florida State Fair with the popular Champion of Champions program, which has revitalized state fair activities and restructured recognition systems to reward youth for knowledge in animal science. Both 4-H and FFA members benefit from enhanced educational opportunities at quality structured learning activities at the club, county, and state levels, including state and regional fairs. The annual state 4-H horse show in July involves more than 500 riders annually, and 4-H horse clubs are active throughout the year. Many counties conduct Ag in the Classroom programs as part of their special interest programming, working closely with the Ag In the Classroom organization. Judging teams are active in horticulture, wildlife ecology, forest ecology, meat science, dairy, land, livestock judging, poultry and other areas.

Citizenship and leadership programs for teens have seen increased popularity in recent years. Planned and organized by a committee of youth and adults, the Florida 4-H Legislature program remains a nationally recognized (USDA Programs of Distinction) leadership and citizenship educational program. It drew record numbers of youth to the state capitol last summer to enact a mock legislature with youth carrying out the roles of legislators, lobbyists, justices, governor, and news reporters. Several counties provide preparatory programs for Florida 4-H Legislature, resulting in grassroots education of youth in how government functions. For example, in Clay County, Legislature attendees must observe school board and board of county commissioners meetings, and the 4-H members have also assisted with local elections. The Florida 4-H Congress continues annually, with more than 500 youth attending a week of educational and competitive programs on campus at UF last summer.

Adult and youth volunteers this year numbered 10,919 providing a monetary value of

Challenges for the Future

Challenges for 4-H have been identified through a 4-H Summit, focus groups, a program development committee, and through discussions with volunteers and staff. The priorities identified for Florida 4-H include the following areas of emphasis:

Providing state and district leadership and for key program leadership positions including organizational development, staff training and mentoring, leadership and citizenship education, etc.

Within the Land-Grant system, reconnect the 4-H youth development program with department chairs and discipline based specialists with emphasis on curriculum development and training for volunteer adults and youth.

Engaging all stakeholders in the 4-H movement at the state level as a unified body to guide the 4-H movement in Florida. As part of this effort, the creation of a structure to carry the tasks is an important component.

Expanding the use of quality indicators for evaluation and accountability and creating a better understanding of agent responsibilities.

Marketing the 4-H Program within our land grant system and within IFAS, UF, and Florida.

Training county agents and volunteers in both program leadership & curriculum leadership utilizing current research in positive community-based youth programs such as essential elements and best practices.

Focusing on curriculum development and/or enhancement in four priority areas: healthy choices (in food, health decisions, etc.), financial literacy, agriculture awareness, and youth / adult partnerships (including civic engagement).

Energy

The Program for Resource Efficient Communities (PREC) is funded by registration fees, for sale publications, contracts and grants. It operates as an entrepreneurial group within CES producing, marketing and delivering high-quality, well targeted, and valuable information products primarily concerned with resource efficient home construction. Educational programs and materials produced by PREC are all designed to promote understanding of the connection between building designs, construction processes, and materials as they relate to durability, resource efficiency and profitability.

The Program for Resource Efficient Communities has strong sponsorship and contract ties to water and electric utilities, the St. Johns River Water Management District, the Florida Department of Environmental Protection, the Florida Office of Insurance Regulation, the Florida and many others. In addition PREC has conducted applied research studies for Certainteed Corporation, EPA, FEMA, Mercedes Homes and HUD.

It is much more difficult to retrofit an existing home for energy efficiency than it is build efficiency into a home during construction. Over the last 10 years approximately 100,000 new homes have been built annually in Florida. Only a small fraction of these homes have been built to readily applicable resource efficiency standards like the EPA/DOE Energy Star home program. Homes stay in the environment for decades, so the benefit of resource efficient homes persists long into the future. In Florida the single greatest energy challenge is to substantially increase the baseline for acceptable efficiency standards.

Community Development

There are hundreds of municipalities in Florida, ranging from Islandia with 5 residents to the Greater Miami area with well over one million. Each Florida community has its own history and special flavor, as well as plans and hopes. The citizens of any community have the goal of working together to improve the quality of their lives and increase their opportunities. For communities to grow, they must have the active interest and involvement of citizens in the form of a rich civic life. In this way, citizens come together to discuss and debate the needs and directions for their community. Then, once the decisions are made, citizens must come together to make and execute their plans. Another requirement for growth and opportunity is a robust economy.

In Florida, a significant basis for such an economy is the natural environment, in terms of natural resources and natural beauty. Together, these account for much of Florida's overall economy in the forms of tourism, industry, recreation and agriculture. Most communities in Florida are looking to one or more of these areas as sources of economic growth. As much as citizens and leaders might desire to have vibrant, cooperative communities, the skills needed to achieve this must be learned. Communities need guidance and expertise. They need support and information. Hanging over all plans and achievements, however, is the possibility of disaster. In the last ten years or so, Florida has sustained major natural disasters, including devastating hurricanes and drought. These disasters have challenged –and in several cases—leveled communities.

A hurricane or tornado can cause irreparable damage to a community, and a severe drought can change the economic welfare of an entire region. The past few years have made all Floridians aware of other threats to the stability of our communities. Every community must now have some response ready in case of an intentional attack. These attacks can take many forms, including bombings and the introduction of disease agents. Central to the life of our communities are the lives of their citizens, and that means working for their safety in the everyday hazards they face in their homes and workplaces. Florida's natural environment

and large agricultural sector expose Florida citizens to a wide range of personal hazards or the possibility of creating hazards for others. As concerned as we are about large-scale emergencies, Floridians are much more likely to face death or injury through equipment or situations they encounter everyday. Whatever our communities are confronted with, Extension must be ready to play its role. Through its reputation for community involvement and quality information, Extension has special capabilities that can assist communities in valuable ways during good times and bad. Currently there are 11 FTEs at the county level devoted to programming in community development and 1.70 FTEs at the state level who provide leadership and support to the major programs in community development.

Challenges for the Future

1. Issues surrounding the rural-urban interface (Growth Management, Land Use Planning, Resource Conservation)

2. Economic development issues (rural-urban disparities, job quality)

3. Community capacity issues (Education, Leadership, Healthcare, Infrastructure)

LongRangePlanning, Ag Summits, Multi-State Collaborations, Stakeholder Involvements, and Meeting the Needs of the Under-Served and Under-Represented.

Both FAMU and UF Extension completed a long range planning process in early 2004 and have continued to do yearly updates since then. For example, in 2007 Extension obtained a list of county goals to use to update critical needs and additional updating was done through the goal and focus team merit review and team review processes. Research has been involved in a series of Ag Summits across the state. These grass roots processes provide valuable information for teaching, research and extension to disseminate into needed research projects, and for the development of teaching courses and Extension programs and activities. A formal process is used and guidance through documents such as "Preparing for Challenge and Change in the 21st Century" and 9 Step Process ensure standardization of the process as well as assuring that all populations including the underserved and underrepresented have the opportunity to provide input. Research has also begun a formal planning process in 2008 which should be completed by the end of the year and will give a clearer picture of research needs in the state especially those impacted by energy and climate change.

Florida has also initiated the development of multi-state meetings between counties located along the Alabama, Georgia statelines. These annual meetings have allowed faculty from the three states to increase multi-state and multi-state integrated programs in the areas of 4-H, Agriculture, Family and Consumer Sciences, and natural resources. Florida also continues to look for opportunities on the state, regional and national level to increase our multi-state and multi-state integrated activities in an effort to better utilize time and resources.

Meeting priority needs while facing challenges as a Landgrant University

Like most of the rest of the country, Florida has been impacted by increases in fuel costs, devolution, and the mortgage crisis that has led to recession. The Florida tax system is tied closely to increasing sales in homes and increased revenue from property taxes and has, as of the Fall of 2007 entered into a budget crisis because the slowdown in the housing market. This reduction in revenue has directly impacted the University system and the landgrant colleges in Florida. Since the fall of 2007 4% or almost $6 million has been returned to the state by Extension and Research and another 6% is expected to be requested before the end of the fiscal year. Additional money's are expected to be lost through 2009-2010. County Government has also been impacted by this same crisis and legislative rules forcing reductions in their tax structures. This is impacting travel which may affect multistate activities over the next few years. It may also cause a reduction in faculty positions which could impact integrated activities. Even within these severe restrictions UF/IFAS and FAMU/CESTA administrators and faculty, through carefully prepared reorganization processes and prioritizing needs assessments are striving to provide the necessary research projects and Extension programs requested by Florida's citizens and at the same balance the needs of the remaining faculty who are being asked to accept additional responsibilities into already full schedules. It is yet to be seen how this will play out over the next few years.

Through multiple stakeholder opportunities for input at the grassroots level, as well as through interaction with business and industry, 1862 research and Extension and 1890 Extension have identified needs for research projects and Extension programs that will be the focus for the Florida land-grant college through the next five to ten years. There have been several new trends that have been added to the priorities including those related to climate and energy and areas such as carbon trading. Faculty will continue to increase integration between research and Extension and develop additional collaborations outside of Florida—regional, national, and international to find solutions to the problems we face, many of which are unique to Florida while others have worldwide ramifications. Florida IFAS and FAMU are also increasing their involvement in interdisciplinary and

inter-county activities as we continue to strive for excellence, efficiency and an effective organization that meets the needs of our clientele.

Changes in Policy and Accountability in IFAS

Along with identifying critical needs from Florida stakeholders, IFAS has also identified the need to develop a method of better capturing accountability and evalutating these programs. To this end Florida continues to evolve and perfect a faculty accountability system based on a logic model that provides information needed for state and federal reporting. Extension has also been updating policy and developing policy related to this process.

Estimated Number of Professional FTEs/SYs total in the State.

Year	Extension		Research	
	1862	1890	1862	1890
2009	400.0	8.0	230.0	0.0
2010	400.0	8.0	230.0	0.0
2011	400.0	8.0	230.0	0.0
2012	400.0	8.0	230.0	0.0
2013	400.0	8.0	230.0	0.0

II. Merit Review Process

1. The Merit Review Process that will be Employed during the 5-Year POW Cycle

- Internal University Panel
- Expert Peer Review

2. Brief Explanation

Prior to the initiation of any research project or extension program that will be wholly, or in part, funded by federal formula funding, the designated review coordinator (or, in the case of some multi-institutional, regional or multi-state projects, the administrative advisor) will call for a peer review of the proposed research or extension project. A minimum of three peer scientists (i.e., individuals qualified by their status in the same discipline, or a closely related field of science) will be selected to read and provide written comments to the appropriate administrator on the proposed project. The focus goal team made up of focus team leaders will read and provide written comments to the appropriate administrator on proposed programs (focus areas).

The terms of reference for the reviewers will focus their attention on questions of the quality of the proposed science, technical feasibility of the research or extension program, the validity of the approach, and the likelihood for completing the stated objectives. Other equally important comments will include relevance to the state's priorities, the degree of integration between extension and research (as appropriate), responsiveness to stakeholders identified critical need areas, and the accuracy of any claims for multi-disciplinary, multi-institutional and multi-state collaboration.

Peer and Merit reviewers may be selected from the same campus or from another institution or organization at the discretion of the research and/or Extension dean(s), or by their delegated authority. Consideration will be given to the expenses associated with the reviewing individual proposal in the selection of reviewers. Additional consideration will be given to appointing reviewers who are without any apparent conflicts of interest and who are without personal or professional bias. Consideration may also be given in selecting reviewers that can protect confidential business information. The anonymity of the reviewers will not be preserved except in very special circumstances.

Peer and Merit reviewers may be selected from the same campus or from another institution or organization at the discretion of the research and/or Extension dean(s), or by their delegated authority. Consideration will be given to the expenses associated with the reviewing individual proposal in the selection of reviewers. Additional consideration will be given to appointing reviewers who are without any apparent conflicts of interest and who are without personal or professional bias. Consideration may also be given in selecting reviewers that can protect confidential business information. The anonymity of the reviewers will not be preserved except in very special circumstances.

Reviewers will be asked to present their findings in either paper or electronic format, and records of the reviewers comments will be preserved for the life of the project, or for a period of three years in the event that a project is not initiated. Document storage of all materials related to the Peer and Merit Review will be paper and/or electronic.

III. Evaluation of Multis & Joint Activities

1. How will the planned programs address the critical issues of strategic importance, including those identified by the stakeholders?

Planned programs address the critical issues of strategic importance in several ways including integration between research and Extension and through collaboration and cooperation between states and regions.

Following each five year long range planning cycle which involves input by stakeholders from the grassroots to the state and national level, critical needs are identified, priortized and separated into manageable focus areas. Critical issues requiring research are provided to research for further discussion and action.

In Extension goal teams are developed around these critical need areas. Critical issues are further divided into three to five focus teams related to each goal area. Presently Extension has a total of seven goal areas and 28 focus teams. These focus teams lead the statewide effort to find and implement solutions to the critical issues. These teams include facutly with research, teaching and Extension appointments. Both UF/IFAS and FAMU/CESTA faculty are included on these teams as well as some ag commodity and industry representatives.

Besides obtaining critical need issues from Extension research also works closely with stakeholders, regulatory agencies and international agencies to monitor other issues and critical needs that have been revealed as problems or potential. Projects are then developed that may be state, regional, national or international in composition.

Extension uses the scientic based results of research as they plan programs. Extension also works with other states in developing multi-state programs. One highlight are the yearly multi-state meetings held in the panhandle area of Florida between Florida, Alabama and Georgia. Several other states have expressed a desire to be involved. As can be seen, all of Florida's Extension programs and many research projects related directly to critical issues identified by stakeholders.

2. How will the planned programs address the needs of under-served and under-represented populations of the State(s)?

As part of the strategic plan Extension identifies under-served and under-represented clientele. Issues are identified both by these populations and by organizations and services that work with and for them. Through this process Florida is aware of whether these issues are county specific or state-wide. Focus teams are provided with all of this information before they begin to design state-wide programs. Target audiences are identified as part of this process and special emphasis is placed on including under-served and under-represented populations.

3. How will the planned programs describe the expected outcomes and impacts?

In Extension, as part of the program planning process state outcomes and impacts are developed by Extension focus teams to be used by all Extension faculty across the state. This allows for the collection of data that can be state aggregated. Outcomes and impacts may be measured and described in a multitude of ways. Some outcomes are obtained through qualitative or quantitative measures. Case studies identify others. Some outcomes are provided through observation.

Research identifies potential outcomes at the time the research project is developed and approved. For both Extension and research the expected outcomes and impacts described based on the critical issue that has been identified.

4. How will the planned programs result in improved program effectiveness and/or efficiency?

The planned programs as they relate to integrated and multi-state activities result in improved program effectiveness and efficiency thorugh:

- The development of better solutions through the integration of research and extension
- A broader knowledge base
- A wider network of human resources
- A wider more diverse audience reached
- Less time spend by individual faculty in developing and implementing programs

IV. Stakeholder Input

1. Actions taken to seek stakeholder input that encourages their participation

- Targeted invitation to selected individuals from general public
- Targeted invitation to non-traditional stakeholder groups
- Targeted invitation to traditional stakeholder groups
- Targeted invitation to traditional stakeholder individuals
- Survey of the general public
- Survey of traditional stakeholder individuals
- Survey of selected individuals from the general public
- Survey of traditional stakeholder groups
- Use of media to announce public meetings and listening sessions
- Targeted invitation to non-traditional stakeholder individuals

Brief explanation.

The strategic planning committee and the Extension and Research advisory committees help to identify ways to encourage participation in long range planning. The strategic planning committee was composed of county and state faculty with research, extension and teaching appointments. There was also professional staff included who have experience in strategic planning. This committee laid out a list of stakeholders and stakeholder groups who needed to participate. The research advisory committee also includes agriculture commodity and industry leaders who were able to provide additional input.

District directors, county extension directors and educational research and extension center directors from around the state were also asked to provide names of stakeholders or organizations that needed to be included in identifying critical issues.

The entire process used by Florida for the Extension Strategic Plan can be found at http://pdec.ifas.ufl.edu

2(A). A brief statement of the process that will be used by the recipient institution to identify individuals and groups stakeholders and to collect input from them

1. Method to identify individuals and groups

- Use Advisory Committees
- Use External Focus Groups
- Open Listening Sessions
- Use Internal Focus Groups
- Needs Assessments
- Use Surveys

Brief explanation.

Involving People in Long-range Planning

Florida Extension under went a long-range planning process that covered the period 2004-2007, a series of listening sessions were conducted with a variety of individuals and groups. Participants of these listening sessions will be asked to help translate Extension's purpose, vision and strategy into tangible future results. In support of that task, listening sessions will be conducted with the following groups:

1. Target audiences of Extension programs (both current and potential).This group of ultimate users must find relevance in our products and services or they will not use them. One way to insure relevance of purpose and direction of our educational programs is to ask those for whom such programs are targeted.

2. Extension advisory committees. Individual committee members who understand both the Extension program development process and the needs and concerns of their community can be a most valuable asset. In addition, their involvement in planning can foster greater commitment to programs they help develop.

3. Research, Teaching and Extension faculty. One of the long-standing missions of the land-grant university is to enhance economic well-being and quality of life of those the university is charged to serve. Keeping people abreast of current and emerging research and the educational experiences resulting from adaptations of that research is crucial to this mission.

4. Stakeholders of local, state and national priorities. Stakeholders (external and internal) play a key role in providing financial and other support for Extension programs. Listening sessions provide an opportunity to both obtain their input and make them aware of effective programs and changes/challenges that may impact Extension.

County Listening Sessions

The input from targeted audiences, stakeholders and County Extension Advisory Committees will be collected through listening sessions conducted within each county and sponsored by the County Extension Advisory Committee. Local citizens who are knowledgeable of the community—its important features, changes impacting it and what the community values—will be invited to participate in their county's listening session. The purpose of each listening session is to develop a community vision2 that begins with answers to the following questions:

1. What do we value about our community?
2. What trends and issues are impacting what we value?
3. If current directions persist, is this where we want to go? If not, are there local resources that can best address each trend or issue?
4. Of those issues and/or concerns that can best be addressed through the expertise of Extension educators, what priority should be placed on each issue or concern?

2(B). A brief statement of the process that will be used by the recipient institution to identify individuals and groups who are stakeholders and to collect input from them

1. Methods for collecting Stakeholder Input

- Survey specifically with non-traditional groups
- Survey of traditional Stakeholder individuals
- Meeting with traditional Stakeholder groups
- Meeting specifically with non-traditional groups
- Meeting with traditional Stakeholder individuals
- Meeting with the general public (open meeting advertised to all)
- Survey of selected individuals from the general public
- Survey of traditional Stakeholder groups

Brief explanation

{NO DATA ENTERED}

3. A statement of how the input will be considered

- In the Action Plans
- In the Budget Process
- To Set Priorities
- To Identify Emerging Issues
- Redirect Research Programs
- In the Staff Hiring Process
- Redirect Extension Programs

Brief explanation.

Both Extension and Research use the information obtained through stakeholder input to identify criticial need priorities. In the most recent long range planning Extension identified over 800 need specific needs. Some of these were county specific and some require state-wide attention. Emerging issues also become obvious. Once priorities are identified administration and faculty are able to identify needs as short term, intermediate and long term.

Once needs are identified both research and Extension are able to redirect programs as needed. For example over the past few years it became obvious that a department dealing with poultry was no longer needed however almost every county identified needs related to community development and sustainability.

Priorities also identify the need for additional faculty and staff in specific areas where research or educational programs are required. These needs affect the budget and are taken into consideration as increase revenue is requested..

Input collected will be used to:

Identifying emerging issues

Redirect Extension programs as critical issues change

Redirect research programs as critcal areas evolve and change

Set new priorities based on findings

V. Planned Program Table of Content

V(A). Planned Program (Summary)

Program #1

1. Name of the Planned Program

Enhance and Maintain Agricultural and Food Systems

2. Brief summary about Planned Program

Planned programs relate to:

- •Agricultural profitability and sustainable use of enviromental resources;
- •Awareness of agriculture's importance to an economy that ranges from local to global
- •Processing, distribution, safety and security of food systems
- •Plant, animal and human protection
- •Safety for agricultural operation and equipment

Some of the major commodity areas found in Florida include:

- •Agronomic row crops
- •Animal sciences and forages
- •Aquaculture
- •Citrus
- •Forestry
- •Fruits and Vegetables
- •Ornamentals and Turf
- •Small Farms and Alternative Enterprises (including small crop profitability)
- •Sugarcane and Rice
- •Small animal production (including goat)

Florida's agriculture and natural resources industry comprises a wide array of economic activities. This industry represents numerous value-added stages, including production, processing, wholesale distribution, retailing, and associated inputs and services. Some of the major production groups are fruits and vegetables, livestock, meat and dairy, forestry, environmental horticulture, seafood, and sugar. In addition, a variety of input and service businesses provide critical supporting roles. In 2003, the agriculture and natural resource industry generated over 50.8 billion dollars of output or sales impacts, $27.6 billion in exports, $2.6 billion in tax contributions and 756,993 jobs that provided $25.1 billion in labor income.

These economic benefits are felt at local, state and international levels. In some rural counties, agriculture is the largest component of the economy. Much of Florida's agricultural produce is exported outside the state, contributing to a $1.5 trillion national agricultural economy. In addition to economic contributions, these industries provide the state with various non-monetary benefits, such as wildlife habitat, aquifer recharge areas and areas of open space. These environmental attributes also support the state's large eco-tourism industry. Surveys indicate that over 50 percent of Florida visitors engage in some form of nature-related activity.

According to Lyons (2006), a large and growing number of Floridians are unaware of the numerous contributions of the state's agricultural industry. Rapid population growth places increasing pressures on land, water and environmental quality. As a consequence, the agricultural sector continues to be challenged for resources including land, water, labor, and other farm inputs.

Food processing, service, preparation, and distribution are all vital activities that support the people of Florida and the state's agricultural industry. New and value-added product development contributes to a viable market for Florida products and provides for the array of products consumers expect. Effective distribution systems also enhance the state's ability to compete effectively in the domestic and global marketplace.

Food safety and security are critical components of a sustainable industry. According to the Centers for Disease Control and Prevention (CDC), there are over 250 known different foodborne diseases. These diseases are caused by

viruses, chemicals, toxins, and fungi, as well as bacteria which are the major source of illness. In the United States, where the food supply is one of the safest in the world, it is estimated that there are 76 million incidences of foodborne illness and approximately 5,000 deaths yearly.

These issues surrounding safety and security span the entire food sector, ranging from consumers to the food service and processing industries. Increasingly, food safety and security are a focus of government, industry, media and consumer awareness. The need for accurate, easy to understand, accessible information is paramount to the success of the entire industry and the health and welfare of the entire population.

Plant, animal, and human protection is becoming increasingly important as Florida's urban areas continue to grow rapidly and the more isolated farm population shrinks. The extension community is helping to provide this protection through partnerships across the continuum from farmers to households, including researchers, extension agents, agricultural producers, Master Gardeners, and Doctors of Plant Medicine. The mechanism for delivery is integrated pest management (IPM), the effective management of pests by using a variety of options that minimize risks to human health and the environment, e.g., pest resistant cultivars, selected growing practices, commercial natural enemies, antagonist microorganisms, and biorational pesticides. Available pest management options are diverse but virtually all of them rely on timely and accurate pest identification and diagnosis. The use of IPM is particularly challenging in Florida because of the climate and global agricultural markets that cause the state to be susceptible to the accidental or intentional introduction of invasive pests. To assure that IPM action is rapid and appropriate, the University of Florida, Institute of Food and Agricultural Sciences (IFAS) has established plant and animal pest diagnostic clinics and networks, such as Florida Plant Diagnostic Network (FPDN) and the Distance Diagnostic and Identification Information System (DDIS) that collaborate with Southern Plant Diagnostic Network (SPDN) and the Florida Department of Agriculture and Consumer Services (FDACS). When pesticides are used as a pest management option, the UF/IFAS Pesticide Safety Education Program (PSEP) provides training and information to applicators on safe, environmentally sound pesticide application practices, personal safety, and regulations. PSEP also assists applicators in meeting state and federal certification and licensing requirements to use pesticides in Florida.

3. Program existence : Mature (More then five years)

4. Program duration : Long-Term (More than five years)

5. Expending formula funds or state-matching funds : Yes

6. Expending other than formula funds or state-matching funds : Yes

V(B). Program Knowledge Area(s)

1. Program Knowledge Areas and Percentage

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
104	Protect Soil from Harmful Effects of Natural Elements	5%	5%	5%	
111	Conservation and Efficient Use of Water	5%	5%	5%	
132	Weather and Climate	5%	5%	5%	
133	Pollution Prevention and Mitigation	5%	5%	5%	
136	Conservation of Biological Diversity	5%	5%	5%	
141	Air Resource Protection and Management	5%	5%	5%	
201	Plant Genome, Genetics, and Genetic Mechanisms	5%	5%	5%	
204	Plant Product Quality and Utility (Preharvest)	5%	5%	5%	
205	Plant Management Systems	5%	5%	5%	
211	Insects, Mites, and Other Arthropods Affecting Plants	5%	5%	5%	
212	Pathogens and Nematodes Affecting Plants	5%	5%	5%	
213	Weeds Affecting Plants	5%	5%	5%	
214	Vertebrates, Mollusks, and Other Pests Affecting Plants	5%	5%	5%	
216	Integrated Pest Management Systems	5%	5%	5%	
307	Animal Management Systems	5%	5%	5%	

315	Animal Welfare/Well-Being and Protection	5%	5%	5%	
402	Engineering Systems and Equipment	5%	5%	5%	
405	Drainage and Irrigation Systems and Facilities	5%	5%	5%	
502	New and Improved Food Products	5%	5%	5%	
603	Market Economics	5%	5%	5%	
	Total	100%	100%	100%	

V(C). Planned Program (Situation and Scope)

1. Situation and priorities

Situation StatementThe scope of challenges facing agriculture and natural resource industries of Florida fall into four primary areas: 1) economic well-being, 2) environmental issues, 3) quality, safety and security issues, and 4) civic engagement.Economic Well-Being:

•Declining profitability due to stable or falling commodity prices and increasing cost of production.

•Liberalized trade agreements that reduce tariffs and subsidies can benefit both foreign and domestic producers by having greater access to markets.

•Resource limitations resulting from

•Land loss due to urban sprawl,

•Increased water consumption due to population growth,

•Restricted use of farm inputs due to environmental concerns, and

•Reduced availability of labor due to a growing reliance on migrant labor.

•New and innovative products and processing technologies must be developed for the industry to remain competitive and to adequately meet the rising expectations of consumers.

Environmental issues:Public concern over the following environmental issues has translated into increasingly stringent and costly environmental regulations on certain agricultural practices that can adversely affect a firm’s economic viability in the short run and sustainability in the longer run.

•Water quality, as impacted by agricultural production practices, such as fertilizer and pesticide residue leaching and runoff, and management of waste from livestock and aquaculture production,

•Water availability as impacted by production-related surface and groundwater withdrawals,

•Conservation of the state's natural resource base, including land for production, wildlife habitat, green space, and fresh and saltwater recreation.

Quality, Safety and Security Issues:

•A heightened awareness by agricultural producers and processors concerning safe production practices such as chemical residues, biological safety concerns, and personal hygiene practices.

•Continued development of modern processing, distribution and storage, technologies and the use of improved handling practices that prevent unnecessary food losses while simultaneously ensuring high quality and safety standards;

•Availability of a wide range of wholesome foods that meet the needs of an increasingly unhealthy population;

•At the retail sector, adequate packaging and labeling so that consumers have reliable information to optimize their food choices;

•Development and implementation of food safety and security programs that protect the nation’s food supply, and;

•Providing adequate information to the state and country’s farm laborers who support agriculture to help them avoid dangers from equipment and exposure to farm chemicals that pose a number of potential risks to their health and safety.

Civic Engagement:Awareness of agriculture and natural resources and their contribution to the state's economic,

environmental, and social well-being. Agricultural awareness efforts can create an informed voting public so that wise choices can be made that benefit Florida's citizens and visitors. The scope of these issues includes:

•Educating the public regarding the role and importance of agriculture in Florida's economy, the stewardship of natural resources, and the relationship between agricultural production and food availability.

•Keeping legislators up-to-date on industry concerns, such as pesticide regulations, worker protection standards, immigration, and international trade.

•Providing public interest groups and the media with objective information regarding the contributions of the agricultural industry,

•Developing information and programs that educate the industry regarding new information on such topics as Best Management Practices, regulatory legislation, and technological advancements.

•Assisting the industry to promote the numerous benefits of agriculture.

2. Scope of the Program

- In-State Extension
- Integrated Research and Extension
- Multistate Integrated Research and Extension
- Multistate Extension

V(D). Planned Program (Assumptions and Goals)

1. Assumptions made for the Program

•People will be motivated by workshops and other educational activities to learn/change
•Information on best practices shows that these approaches work well for these target audiences
•Changes suggested in activities related to this program will improve quality of life for participants

2. Ultimate goal(s) of this Program

Improve procedures and techniques for managing business operations
Improve procedures and techniques to increase revenue from agricultural practices
Improve procedures and techniques to reduce costs from agricultural practices
Improve management systems, procedures and/or techniques to improve water conservation
Improve management systems, procedures, and/or techniques to improve water quality
improve compliance with local, state and federal regulations
Improve skills in animal sciences
Improve delivery of Extension programs
Improve competencies of Extension faculty from inservice training
Improve agricultural and environmental knowledge/skills
Improve understanding of agriculture's contribution to the economy by agriculture and natural resources.
Production of safer food
Production of food under more secure conditions
Enhnaced technical competence of food producers, packers and processors
More efficient and effective distribution of food products
Improved procedures and techniques for identifying and monitoring pests
Improved procedures and techniques for handling and using agricultural chemicals, fuels, equipment, and other products
Improved procedures and techniques to reduce costs from agricultural practices
Improved procedures and techniques for using protective safety equipment

V(E). Planned Program (Inputs)

1. Estimated Number of professional FTE/SYs to be budgeted for this Program

Year	Extension		Research	
	1862	1890	1862	1890
2009	159.0	3.0	0.0	0.0
2010	159.0	3.0	0.0	0.0
2011	159.0	3.0	0.0	0.0
2012	159.0	3.0	0.0	0.0
2013	159.0	3.0	0.0	0.0

V(F). Planned Program (Activity)

1. Activity for the Program

• Conduct workshops and meetings
•Deliver services
•Develop products, curriculum, resources
•Provide training
•provide counseling
•Make assessments
•work with the media
•develop partnerships

2. Type(s) of methods to be used to reach direct and indirect contacts

Extension	
Direct Methods	**Indirect Methods**
• Workshop • One-on-One Intervention • Other 1 (telephone calls) • Education Class • Group Discussion • Demonstrations	• Other 1 (radio) • Public Service Announcement • Web sites • TV Media Programs • Newsletters

3. Description of targeted audience

•Producers
•Commodity Associations
•Owners/Operators
•Managers/Supervisors
•Workers/Laborers
•Allied Industry Representatives
•Small Farmers
•Government/Regulatory
•County government
•State government
•Federal government
•Tribal government
•International governing bodies
•Harvesting/Packing/Processing/Distribution
•Harvesters/Packers
•Processors

•Distributors/Transporters
•Retailers
•Importers/Exporters
•Youth
•4H(K-12)
•Other Youth
•Youth Educators
•Extension Faculty
•Extension Faculty

V(G). Planned Program (Outputs)

1. Standard output measures

Target for the number of persons(contacts) to be reached through direct and indirect contact methods

	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Year	Target	Target	Target	Target
2009	380000	6000000	0	0
2010	380000	6000000	0	0
2011	380000	6000000	0	0
2012	380000	6000000	0	0
2013	380000	6000000	0	0

2. (Standard Research Target) Number of Patent Applications Submitted

Expected Patent Applications

2009 :0 **2010 :**0 **2011 :** 0 **2012 :**0 **2013 :**0

3. Expected Peer Review Publications

Year	Research Target	Extension Target	Total
2009	0	95	0
2010	0	100	0
2011	0	105	0
2012	0	110	0
2013	0	0	0

V(H). State Defined Outputs

1. Output Target

- {NO DATA ENTERED}

{NO DATA ENTERED} {NO DATA ENTERED} {NO DATA ENTERED} {NO DATA ENTERED} {NO DATA ENTERED}

V(I). State Defined Outcome

O. No	Outcome Name
1	Improve procedures and techniques for managing business operations
2	Improve procedures and techniques to increase revenue from agricultural practices
3	Improve procedures and techniques to reduce costs from agricultural practices
4	Improve management systems, procedures and/or techniques to improve water conservation
5	Improve management systems, procedures, and/or techniques to improve water quality
6	improve compliance with local, state and federal regulations
7	Improve skills in animal sciences
8	Improve agricultural and environmental knowledge/skills
9	Improve understanding of agriculture's contribution to the economy by agriculture and natural resources.
10	Production of safer food
11	Production of food under more secure conditions
12	Enhanced technical competence of food producers, packers and processors
13	More efficient and effective distribution of food products
14	Improved procedures and techniques for identifying and monitoring pests
15	Improved procedures and techniques for handling and using agricultural chemicals, fuels, equipment, and other products
16	Improved procedures and techniques for using protective safety equipment

Outcome #1

1. Outcome Target

Improve procedures and techniques for managing business operations

2. Outcome Type : Change in Knowledge Outcome Measure

2009 : 100	**2010 :** 100	**2011 :** 100	**2012 :** 100	**2013 :** 100

3. Associated Institute Type(s)

- 1862 Extension
- 1890 Extension

4. Associated Knowledge Area(s)

- 603 - Market Economics

Outcome #2

1. Outcome Target

Improve procedures and techniques to increase revenue from agricultural practices

2. Outcome Type : Change in Knowledge Outcome Measure

2009 : 100	**2010 :** 100	**2011 :** 100	**2012 :** 100	**2013 :** 100

3. Associated Institute Type(s)

- 1862 Extension
- 1890 Extension

4. Associated Knowledge Area(s)

- 204 - Plant Product Quality and Utility (Preharvest)
- 205 - Plant Management Systems
- 211 - Insects, Mites, and Other Arthropods Affecting Plants
- 212 - Pathogens and Nematodes Affecting Plants
- 213 - Weeds Affecting Plants
- 307 - Animal Management Systems
- 315 - Animal Welfare/Well-Being and Protection
- 603 - Market Economics

Outcome #3

1. Outcome Target

Improve procedures and techniques to reduce costs from agricultural practices

2. Outcome Type : Change in Knowledge Outcome Measure

2009 : 100	**2010 :** 100	**2011 :** 100	**2012 :** 100	**2013 :** 100

3. Associated Institute Type(s)

- 1862 Extension
- 1890 Extension

4. Associated Knowledge Area(s)

- 104 - Protect Soil from Harmful Effects of Natural Elements
- 111 - Conservation and Efficient Use of Water

- 132 - Weather and Climate
- 133 - Pollution Prevention and Mitigation
- 136 - Conservation of Biological Diversity
- 141 - Air Resource Protection and Management
- 201 - Plant Genome, Genetics, and Genetic Mechanisms
- 204 - Plant Product Quality and Utility (Preharvest)
- 205 - Plant Management Systems
- 211 - Insects, Mites, and Other Arthropods Affecting Plants
- 212 - Pathogens and Nematodes Affecting Plants
- 213 - Weeds Affecting Plants
- 214 - Vertebrates, Mollusks, and Other Pests Affecting Plants
- 216 - Integrated Pest Management Systems
- 307 - Animal Management Systems
- 315 - Animal Welfare/Well-Being and Protection
- 402 - Engineering Systems and Equipment
- 405 - Drainage and Irrigation Systems and Facilities
- 502 - New and Improved Food Products
- 603 - Market Economics

Outcome #4

1. Outcome Target

Improve management systems, procedures and/or techniques to improve water conservation

2. Outcome Type : Change in Knowledge Outcome Measure

2009 :100 **2010 :** 100 **2011 :** 100 **2012 :**100 **2013 :** 100

3. Associated Institute Type(s)

•1862 Extension
•1890 Extension

4. Associated Knowledge Area(s)

- 111 - Conservation and Efficient Use of Water

Outcome #5

1. Outcome Target

Improve management systems, procedures, and/or techniques to improve water quality

2. Outcome Type : Change in Knowledge Outcome Measure

2009 :100 **2010 :** 100 **2011 :** 100 **2012 :**100 **2013 :** 100

3. Associated Institute Type(s)

•1862 Extension
•1890 Extension

4. Associated Knowledge Area(s)

- 111 - Conservation and Efficient Use of Water
- 133 - Pollution Prevention and Mitigation

Outcome #6

1. Outcome Target

improve compliance with local, state and federal regulations

2. Outcome Type : Change in Knowledge Outcome Measure

2009 : 100	**2010 :** 100	**2011 :** 100	**2012 :** 0	**2013 :** 0

3. Associated Institute Type(s)

•1862 Extension
•1890 Extension

4. Associated Knowledge Area(s)

- {NO DATA ENTERED}

Outcome #7

1. Outcome Target

Improve skills in animal sciences

2. Outcome Type : Change in Knowledge Outcome Measure

2009 : 100	**2010 :** 100	**2011 :** 100	**2012 :** 100	**2013 :** 100

3. Associated Institute Type(s)

•1862 Extension
•1890 Extension

4. Associated Knowledge Area(s)

- 307 - Animal Management Systems
- 315 - Animal Welfare/Well-Being and Protection

Outcome #8

1. Outcome Target

Improve agricultural and environmental knowledge/skills

2. Outcome Type : Change in Knowledge Outcome Measure

2009 : 100	**2010 :** 100	**2011 :** 100	**2012 :** 100	**2013 :** 100

3. Associated Institute Type(s)

•1862 Extension
•1890 Extension

4. Associated Knowledge Area(s)

- 111 - Conservation and Efficient Use of Water
- 133 - Pollution Prevention and Mitigation
- 136 - Conservation of Biological Diversity
- 141 - Air Resource Protection and Management
- 405 - Drainage and Irrigation Systems and Facilities

Outcome #9

1. Outcome Target

Improve understanding of agriculture's contribution to the economy by agriculture and natural resources.

2. Outcome Type : Change in Knowledge Outcome Measure

2009 : 100	**2010 :** 100	**2011 :** 100	**2012 :** 100	**2013 :** 100

3. Associated Institute Type(s)

- 1862 Extension
- 1890 Extension

4. Associated Knowledge Area(s)

- {NO DATA ENTERED}

Outcome #10

1. Outcome Target

Production of safer food

2. Outcome Type : Change in Knowledge Outcome Measure

2009 : 100	**2010 :** 100	**2011 :** 100	**2012 :** 100	**2013 :** 100

3. Associated Institute Type(s)

- 1862 Extension
- 1890 Extension

4. Associated Knowledge Area(s)

- 502 - New and Improved Food Products

Outcome #11

1. Outcome Target

Production of food under more secure conditions

2. Outcome Type : Change in Knowledge Outcome Measure

2009 : 100	**2010 :** 100	**2011 :** 100	**2012 :** 100	**2013 :** 100

3. Associated Institute Type(s)

- 1862 Extension
- 1890 Extension

4. Associated Knowledge Area(s)

- 204 - Plant Product Quality and Utility (Preharvest)
- 502 - New and Improved Food Products

Outcome #12

1. Outcome Target

Enhanced technical competence of food producers, packers and processors

2. Outcome Type : Change in Knowledge Outcome Measure

2009 : 50	**2010 :** 50	**2011 :** 50	**2012 :** 50	**2013 :** 50

3. Associated Institute Type(s)

- 1862 Extension
- 1890 Extension

4. Associated Knowledge Area(s)

- 502 - New and Improved Food Products

Outcome #13

1. Outcome Target

More efficient and effective distribution of food products

2. Outcome Type : Change in Knowledge Outcome Measure

2009 : 50	**2010 :** 5	**2011 :** 50	**2012 :** 50	**2013 :** 50

3. Associated Institute Type(s)

- 1862 Extension
- 1890 Extension

4. Associated Knowledge Area(s)

- 502 - New and Improved Food Products

Outcome #14

1. Outcome Target

Improved procedures and techniques for identifying and monitoring pests

2. Outcome Type : Change in Knowledge Outcome Measure

2009 : 100	**2010 :** 100	**2011 :** 100	**2012 :** 100	**2013 :** 100

3. Associated Institute Type(s)

- 1862 Extension
- 1890 Extension

4. Associated Knowledge Area(s)

- 211 - Insects, Mites, and Other Arthropods Affecting Plants
- 212 - Pathogens and Nematodes Affecting Plants
- 214 - Vertebrates, Mollusks, and Other Pests Affecting Plants
- 216 - Integrated Pest Management Systems

Outcome #15

1. Outcome Target

Improved procedures and techniques for handling and using agricultural chemicals, fuels, equipment, and other products

2. Outcome Type : Change in Knowledge Outcome Measure

2009 : 100	**2010 :** 100	**2011 :** 100	**2012 :** 100	**2013 :** 100

3. Associated Institute Type(s)

- 1862 Extension
- 1890 Extension

4. Associated Knowledge Area(s)

- {NO DATA ENTERED}

Outcome #16

1. Outcome Target

Improved procedures and techniques for using protective safety equipment

2. Outcome Type : Change in Knowledge Outcome Measure

2009 :	2010 :	2011 :	2012 :	2013 :
50	50	50	50	50

3. Associated Institute Type(s)

- 1862 Extension
- 1890 Extension

4. Associated Knowledge Area(s)

- {NO DATA ENTERED}

V(J). Planned Program (External Factors)

1. External Factors which may affect Outcomes

- Populations changes (immigration,new cultural groupings,etc.)
- Government Regulations
- Appropriations changes
- Economy
- Natural Disasters (drought,weather extremes,etc.)
- Competing Programatic Challenges
- Competing Public priorities
- Public Policy changes

Description

Florida is a state located in the tropics. Natural disasters such as tropical storms and hurricanes are common annual occurrences in this state. Severe weather conditions such as droughts frequently led to large-scale fires. We also have other weather extremes such as floods leading to large scale damage especially along the coastal regions.

Florida also has three international shipping ports: Miami, Jacksonville and Tampa. These cities all have international airports. Along with this we have over 53 million tourists visiting from around the world. It has been estimated that this international influx into Florida has made us the entry point of one new invasive pest, plant or disease each week. Any of this could be an external factor affecting land-grant outcomes.

V(K). Planned Program (Evaluation Studies and Data Collection)

1. Evaluation Studies Planned

- Comparisons between different groups of individuals or program participants experiencing different levels of program intensity.
- After Only (post program)
- Comparisons between program participants (individuals,group,organizations) and non-participants
- Before-After (before and after program)
- Retrospective (post program)
- Time series (multiple points before and after program)
- During (during program)
- Case Study
- Comparison between locales where the program operates and sites without program intervention

Description

The Florida land-grant college understands the value of evaluation in our annual program plan. Methods of evaluation are included as part of the annual faculty activity plan of work and report of accomplishment process (unifas). This information is collected as part of the logic model used in our Florida system and will be available for the CSREES reports of accomplishment on a yearly basis.

2. Data Collection Methods

- Telephone
- Sampling
- Portfolio Reviews
- Structured
- Case Study
- Whole population
- On-Site
- Observation
- Unstructured
- Mail
- Journals
- Tests

Description

The Florida land-grant colleges use acceptable forms of qualitative and quantitative data collection methods as specified by the Institutional Regulation Board (IRB) and the Southern Association Accreditation Board.

V(A). Planned Program (Summary)

Program #2

1. Name of the Planned Program

Maintain and Enhance Florida's Environment

2. Brief summary about Planned Program

Maintaining and enhancing Florida's environment looks specifically at:

- Water resources
- Conservation and sustainable use of freshwater and terrestrial natural resources and ecosystems
- Environmental education
- Conservation and sustainable use of coastal and marine natural resources and ecosystems

3. Program existence : Intermediate (One to five years)

4. Program duration : Long-Term (More than five years)

5. Expending formula funds or state-matching funds : Yes

6. Expending other than formula funds or state-matching funds : No

V(B). Program Knowledge Area(s)

1. Program Knowledge Areas and Percentage

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
102	Soil, Plant, Water, Nutrient Relationships	5%	5%	5%	
103	Management of Saline and Sodic Soils and Salinity	5%	5%	5%	
104	Protect Soil from Harmful Effects of Natural Elements	5%	5%	5%	
111	Conservation and Efficient Use of Water	5%	5%	5%	
112	Watershed Protection and Management	5%	5%	5%	
131	Alternative Uses of Land	5%	5%	5%	
132	Weather and Climate	5%	5%	5%	
133	Pollution Prevention and Mitigation	5%	5%	5%	
134	Outdoor Recreation	5%	5%	5%	
135	Aquatic and Terrestrial Wildlife	5%	5%	5%	
136	Conservation of Biological Diversity	5%	5%	5%	
141	Air Resource Protection and Management	5%	5%	5%	
216	Integrated Pest Management Systems	5%	5%	5%	
403	Waste Disposal, Recycling, and Reuse	5%	5%	5%	
605	Natural Resource and Environmental Economics	5%	5%	5%	

608	Community Resource Planning and Development	5%	5%	5%	
610	Domestic Policy Analysis	5%	5%	5%	
723	Hazards to Human Health and Safety	5%	5%	5%	
803	Sociological and Technological Change Affecting Individuals, Familie	5%	5%	5%	
804	Human Environmental Issues Concerning Apparel, Textiles, and Res	5%	5%	5%	
	Total	100%	100%	100%	

V(C). Planned Program (Situation and Scope)

1. Situation and priorities

Situation StatementFlorida depends heavily on a healthy and sustainable environment. For example, freshwater is a critical resource for agriculture, industry, natural systems, tourism, and the health and convenience of all Floridians. From another view, Florida is a saltwater state. Its estuarine, coastal and marine systems stretch further than all the other Atlantic states from Georgia to New England, and they produce over $5 billion in fisheries and wildlife resources each year, buffer coastal areas from storms, absorb pollutants and provide amenities for coastal settlement, trade and tourism, including over 1 million boaters and divers per year. Terrestrial and freshwater flora and fauna also contribute significantly to Florida's economy and the quality of life enjoyed by residents and tourists. People recognize the value of their environment. For example, prevention of water pollution, protecting the marine environment, and conservation of wildlife habitat and endangered species were rated as high priority educational issues by 72%, 64% and 50% of respondents to a 1999 survey. As shown by this survey, there is an opportunity and need to inform and educate Floridians about their environment.The sustainability and health of Florida's environment is under pressure from a range of human activities. For example, Florida's water supply is currently sufficient, but experts predict that the 700 new residents arriving in Florida each day will increase demand to 9.3 billion gallons per day by 2020. This increase will put severe pressure on the state's water and other natural resources. The number of people living in Florida also increases potentially damaging inputs that enter coastal waters via watersheds and runoff. For example, household pesticide use is one factor that leads to five of Florida's estuaries being among the ten U.S. estuaries most threatened by pesticides. Historical losses of 50% of the salt marsh, 60% of the seagrass, and 85% of the mangroves in some of Florida's estuaries also need to be repaired. In addition, Florida ranks third among states in the number of plants and animals federally listed as being in danger of becoming extinct, and half of all Florida's non-marine vertebrates are declining in number. Successful management of these threats will require raised awareness, widespread distribution of useful information, suitable skills, and the demonstration of alternative behaviors that can ensure the quality and quantity of Florida's natural resources.The overall objective of this Goal is to sustain or enhance Florida's environment by increasing relevant knowledge and by motivating citizens, professionals, and agency personnel to take actions that reduce impacts on these valuable resources. The primary impact of this work will be increased efforts to apply sustainable management in Florida. This impact hinges on promoting increased awareness and understanding of ecological, economic, social and management principles and processes among citizens, professionals, and agency personnel. Tangible results include an increased involvement of citizens in monitoring and management, an increased use of key ecological concepts in discussions held by state and federal management agencies, and an increased awareness and use of adaptive and participative management. Programs that improve the skills and resources available to environmental educators also represent critical elements in achieving these objectives.

2. Scope of the Program

- Multistate Extension
- Integrated Research and Extension
- In-State Extension
- Multistate Integrated Research and Extension

V(D). Planned Program (Assumptions and Goals)

1. Assumptions made for the Program

•People will be motivated by workshops and other educational activities to learn/change
•Information on best practices shows that these approaches work well for these target audiences
•Changes suggested in activities related to this program will improve quality of life for participants

2. Ultimate goal(s) of this Program

Improved mangement systems, procedures, and/or techniques to improve water conservation
Improved management systems, procedures, and/or techniques to maintain or improve water quality
Increase understanding of Florida's coastal and marine environment
Improved procedures and techniques to reduce environmental impact from human activity
Improved compliance with local, state and federal regulations
Improved procedures and techniques to deliver environmental education
Change behaviors that impact environmental quality
Develop skills required for effective critical thinking, problem solving and decision making
Improved skills for developing service learning and other community engaging activities
Improve agricultrual and environmental knowledge/skills
Increase understanding of how Florida's natural resources ecosystems and how they respond to human activity

V(E). Planned Program (Inputs)

1. Estimated Number of professional FTE/SYs to be budgeted for this Program

Year	Extension		Research	
	1862	1890	1862	1890
2009	40.0	1.0	0.0	0.0
2010	40.0	1.0	0.0	0.0
2011	40.0	1.0	0.0	0.0
2012	40.0	1.0	0.0	0.0
2013	40.0	1.0	0.0	0.0

V(F). Planned Program (Activity)

1. Activity for the Program

• Conduct workshops and meetings
•Deliver services
•Develop products, curriculum, resources
•Provide training
•provide counseling
•Make assessments
•work with the media
•develop partnerships

2. Type(s) of methods to be used to reach direct and indirect contacts

Extension	
Direct Methods	**Indirect Methods**
• Group Discussion • Workshop • Demonstrations • Education Class • One-on-One Intervention • Other 1 (telephone calls)	• Newsletters • TV Media Programs • Public Service Announcement • Web sites • Other 1 (radio)

3. Description of targeted audience

Recreation Service Operations
Construction Operations
Agricultural Operations
Landscape and Horticultural Service Operations
Homeowners
Adults
Adult Volunteers
Renters
School Age Youth
Youth Volunteers
Administrators of Education
County Government
Administrators of Environmental Quality

V(G). Planned Program (Outputs)

1. Standard output measures

Target for the number of persons(contacts) to be reached through direct and indirect contact methods

	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Year	Target	Target	Target	Target
2009	300000	1100000	0	0
2010	300000	1100000	0	0
2011	300000	1100000	0	0
2012	300000	1100000	0	0
2013	0	0	0	0

2. (Standard Research Target) Number of Patent Applications Submitted

Expected Patent Applications

2009 :0 **2010 :**0 **2011 :** 0 **2012 :**0 **2013 :**0

3. Expected Peer Review Publications

Year	Research Target	Extension Target	Total
2009	0	35	0
2010	0	40	0
2011	0	45	0
2012	0	50	0
2013	0	0	0

V(H). State Defined Outputs

1. Output Target

- {NO DATA ENTERED}

{NO DATA ENTERED} {NO DATA ENTERED} {NO DATA ENTERED} {NO DATA ENTERED} {NO DATA ENTERED}

V(I). State Defined Outcome

O. No	Outcome Name
1	Improved management systems, procedures, and/or techniques to improve water conservation
2	Improved management systems, procedures, and/or techniques to maintain or improve water quality
3	Increase understanding of Florida's coastal and marine environment
4	Improved procedures and techniques to reduce environmental impact from human activity
5	Improved compliance with local, state and federal regulations
6	Improved procedures and techniques to deliver environmental education
7	Change behaviors that impact environmental quality
8	Develop skills required for effective critical thinking, problem solving and decision making
9	Improved skills for developing service learning and other community engaging activities
10	Improve agricultrual and environmental knowledge/skills
11	Increase understanding of how Florida's natural resources ecosystems and how they respond to human activity

Outcome #1

1. Outcome Target

Improved management systems, procedures, and/or techniques to improve water conservation

2. Outcome Type : Change in Knowledge Outcome Measure

2009 :	**2010 :**	**2011 :**	**2012 :**	**2013 :**
100	100	100	100	100

3. Associated Institute Type(s)

- 1862 Extension
- 1890 Extension

4. Associated Knowledge Area(s)

- 111 - Conservation and Efficient Use of Water
- 112 - Watershed Protection and Management

Outcome #2

1. Outcome Target

Improved management systems, procedures, and/or techniques to maintain or improve water quality

2. Outcome Type : Change in Knowledge Outcome Measure

2009 :	**2010 :**	**2011 :**	**2012 :**	**2013 :**
1000	1000	1000	1000	1000

3. Associated Institute Type(s)

- 1862 Extension
- 1890 Extension

4. Associated Knowledge Area(s)

- 111 - Conservation and Efficient Use of Water
- 112 - Watershed Protection and Management

Outcome #3

1. Outcome Target

Increase understanding of Florida's coastal and marine environment

2. Outcome Type : Change in Knowledge Outcome Measure

2009 :	**2010 :**	**2011 :**	**2012 :**	**2013 :**
500	500	500	500	500

3. Associated Institute Type(s)

- 1862 Extension
- 1890 Extension

4. Associated Knowledge Area(s)

- 134 - Outdoor Recreation
- 135 - Aquatic and Terrestrial Wildlife
- 605 - Natural Resource and Environmental Economics

Outcome #4

1. Outcome Target

Improved procedures and techniques to reduce environmental impact from human activity

2. Outcome Type : Change in Knowledge Outcome Measure

2009 :	2010 :	2011 :	2012 :	2013 :
100	100	100	100	100

3. Associated Institute Type(s)

- 1862 Extension
- 1890 Extension

4. Associated Knowledge Area(s)

- 111 - Conservation and Efficient Use of Water
- 133 - Pollution Prevention and Mitigation
- 136 - Conservation of Biological Diversity
- 403 - Waste Disposal, Recycling, and Reuse
- 723 - Hazards to Human Health and Safety

Outcome #5

1. Outcome Target

Improved compliance with local, state and federal regulations

2. Outcome Type : Change in Knowledge Outcome Measure

2009 :	2010 :	2011 :	2012 :	2013 :
100	100	100	100	100

3. Associated Institute Type(s)

- 1862 Extension
- 1890 Extension

4. Associated Knowledge Area(s)

- {NO DATA ENTERED}

Outcome #6

1. Outcome Target

Improved procedures and techniques to deliver environmental education

2. Outcome Type : Change in Knowledge Outcome Measure

2009 :	2010 :	2011 :	2012 :	2013 :
1000	1000	1000	1000	1000

3. Associated Institute Type(s)

- 1862 Extension
- 1890 Extension

4. Associated Knowledge Area(s)

- 104 - Protect Soil from Harmful Effects of Natural Elements
- 111 - Conservation and Efficient Use of Water
- 112 - Watershed Protection and Management
- 133 - Pollution Prevention and Mitigation
- 136 - Conservation of Biological Diversity
- 605 - Natural Resource and Environmental Economics

Outcome #7

1. Outcome Target

Change behaviors that impact environmental quality

2. Outcome Type : Change in Knowledge Outcome Measure

2009 : 100	**2010 :** 100	**2011 :** 100	**2012 :** 100	**2013 :** 100

3. Associated Institute Type(s)

- 1862 Extension
- 1890 Extension

4. Associated Knowledge Area(s)

- {NO DATA ENTERED}

Outcome #8

1. Outcome Target

Develop skills required for effective critical thinking, problem solving and decision making

2. Outcome Type : Change in Knowledge Outcome Measure

2009 : 20	**2010 :** 20	**2011 :** 20	**2012 :** 20	**2013 :** 20

3. Associated Institute Type(s)

- 1862 Extension
- 1890 Extension

4. Associated Knowledge Area(s)

- {NO DATA ENTERED}

Outcome #9

1. Outcome Target

Improved skills for developing service learning and other community engaging activities

2. Outcome Type : Change in Knowledge Outcome Measure

2009 : 50	**2010 :** 50	**2011 :** 50	**2012 :** 50	**2013 :** 50

3. Associated Institute Type(s)

- 1862 Extension
- 1890 Extension

4. Associated Knowledge Area(s)

- {NO DATA ENTERED}

Outcome #10

1. Outcome Target

Improve agricultrual and environmental knowledge/skills

2. Outcome Type : Change in Knowledge Outcome Measure

2009 : 50	**2010 :** 50	**2011 :** 50	**2012 :** 50	**2013 :** 50

3. Associated Institute Type(s)

- 1862 Extension
- 1890 Extension

4. Associated Knowledge Area(s)

- {NO DATA ENTERED}

Outcome #11

1. Outcome Target

Increase understanding of how Florida's natural resources ecosystems and how they respond to human activity

2. Outcome Type : Change in Knowledge Outcome Measure

2009 :50 **2010 :** 50 **2011 :** 50 **2012 :**50 **2013 :** 50

3. Associated Institute Type(s)

•1862 Extension
•1890 Extension

4. Associated Knowledge Area(s)

- {NO DATA ENTERED}

V(J). Planned Program (External Factors)

1. External Factors which may affect Outcomes

- Natural Disasters (drought,weather extremes,etc.)
- Appropriations changes
- Competing Public priorities
- Government Regulations
- Public Policy changes
- Economy
- Competing Programatic Challenges

Description

Florida is a state located in the tropics. Natural disasters such as tropical storms and hurricanes are common annual occurrences in this state. Severe weather conditions such as droughts frequently led to large-scale fires. We also have other weather extremes such as floods leading to large scale damage especially along the coastal regions.

Florida also has three international shipping ports: Miami, Jacksonville and Tampa. These cities all have international airports. Along with this we have over 53 million tourists visiting from around the world. It has been estimated that this international influx into Florida has made us the entry point of one new invasive pest, plant or disease each week. Any of this could be an external factor affecting land-grant outcomes.

Changes in state, county and federal appropriations can also affect the outcomes.

V(K). Planned Program (Evaluation Studies and Data Collection)

1. Evaluation Studies Planned

- Time series (multiple points before and after program)
- Before-After (before and after program)
- Case Study
- After Only (post program)
- Comparisons between different groups of individuals or program participants experiencing different levels of program intensity.
- Retrospective (post program)
- During (during program)
- Comparisons between program participants (individuals,group,organizations) and non-participants

Description

The Florida land-grant college understands the value of evaluation in our annual program plan. Methods of evaluation are

included as part of the annual faculty activity plan of work and report of accomplishment process (unifas). This information is collected as part of the logic model used in our Florida system and will be available for the CSREES reports of accomplishment on a yearly basis.

2. Data Collection Methods

- Case Study
- Tests
- Telephone
- Unstructured
- Structured
- Portfolio Reviews
- Sampling
- Journals
- Mail
- Observation
- Whole population
- On-Site

Description

The Florida land-grant colleges use acceptable forms of qualitative and quantitative data collection methods.

V(A). Planned Program (Summary)

Program #3

1. Name of the Planned Program

Developing Responsible and Productive Youth Through 4-H and Other Youth Programs

2. Brief summary about Planned Program

Developing responsible and productive youth through 4-H and other youth programs relates specifically to areas including:
- •Life skills developed in youth through subject matter experience
- •Organizational strategies and learning environment to support youth programs
- •Volunteer development and systems to support youth

3. Program existence : Intermediate (One to five years)

4. Program duration : Long-Term (More than five years)

5. Expending formula funds or state-matching funds : Yes

6. Expending other than formula funds or state-matching funds : No

V(B). Program Knowledge Area(s)

1. Program Knowledge Areas and Percentage

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
806	Youth Development	100%	100%	100%	
	Total	100%	100%	100%	

V(C). Planned Program (Situation and Scope)

1. Situation and priorities

Situation StatementIn an increasingly complex and competitive world market, the human capital of the United States is an important resource. Young people under 18 years represent 28.3% of the population in the United States and over 33% in Florida.Each day America's youth decide how they will spend their waking hours when not in school. For many, these hours harbor both risk and opportunity. For some, particularly those supervised by adults, the out-of-school hours offer opportunities to be with friends, play sports, pursue interests, and engage in challenging activities. But for many home alone, the out-of-school hours present serious risks for substance abuse, crime, violence, and sexual activity. Time spent alone is not the crucial contributor to high risk. Rather it is what young people do during that time, where they do it, and with whom that leads to positive or negative consequences.Positive youth development provides opportunities for youth to feel safe, secure, respected, intellectually stimulated, and engaged in their community. Positive youth development occurs from an intentional process that promotes positive outcomes for young people by providing opportunities, relationships, and support. Youth development takes place in families, peer groups, schools, neighborhoods and communities. 4-H Youth Development uses experiential, research-based educational opportunities that help youth become competent, caring, confident, connected, and contributing citizens of character.Research indicates that regular participation in extracurricular activities during adolescence can lead to long-term payoffs. Recent studies indicate that youth spending time in positive youth programs, such as 4-H, are less likely to become involved in high risk behaviors, have higher school attendance and grades, better conflict management practices and better work habits. Additional research studies have shown that when young people have safe, structured, supervised and healthy activities in which to participate, they are less likely to become involved in the high-risk, unhealthy behaviors (such as substance abuse, crime, violence, and sexual activity) that can delay or derail positive development, and they are more likely to obtain a broad range of competencies. In addition, studies find that teens who are consistently involved in extracurricular activities are likely to go on to attend college, leading to increased lifetime earnings. Involved youth are also more likely as adults to vote in national and local elections, and to volunteer in community and religious organizations. This truly makes the concept of civic engagement

real.Recent surveys of 4-H members in Florida have shown that 4-H equips and trains the youth with leadership and communication skill, offers community service, and builds a network of people that the youth can later utilize.Reports from 97% of Florida counties have prioritized three areas for youth programming: developing life skills and career awareness, creating constructive learning environments for youth (organizational design and development), and enhancing adult support system for youth (volunteer development).The Florida 4-H program is committed to providing inclusive and positive youth development programs that target the following outcomes for young people:

•Youth are physically and emotionally safe;
•Youth develop and maintain positive relationships;
•Youth develop a sense of belonging, in an inclusive environment;
•Youth develop personal competencies for self-reliance, independence and autonomy;
•Youth grow and contribute as active citizens through service and leadership; and
•Youth develop marketable, productive skills and competencies for work and family life.

In summary, Florida IFAS/Extension 4-H will utilize positive youth development program standards identified through research and practice to enhance the knowledge, well-being, quality of life, and civic engagement of youth by focusing on:

•Life Skills Developed in Youth Through Subject Matter Experience
•Organizational Strategies and Learning Environments to Support Youth Programs, and
•Volunteer Development and Systems to Support Youth.

2. Scope of the Program

- Multistate Extension
- In-State Extension
- Multistate Integrated Research and Extension
- Integrated Research and Extension

V(D). Planned Program (Assumptions and Goals)

1. Assumptions made for the Program

Youth will be motivated by workshops, projects and other educational activities to learn/change
Volunteers will learn to provide effective and efficient guidance to youth
Changes suggested in activities related to this program will increase knowledge and experience for Florida youth involved in 4-H and other land-grant college activities.

2. Ultimate goal(s) of this Program

Improved competencies of Extension Faculty from inservice training
Improved procedures and techniques to increase volunteerism
Improved volunteer development procedure and techniques
Improved delivery of Extension programs
4-H program demonstrate excellence in diversity
Improve agricultural and environmental knowledge/skills
Improve skills in animal sciences
Develop improved family and consumer skills
Develop healthy lifestyle choices
Develop science and technology skills
4-H program demonstrate a safe and inclusive environment
4-H delivery systems demonstrate quality and excellence

V(E). Planned Program (Inputs)

1. Estimated Number of professional FTE/SYs to be budgeted for this Program

Year	Extension		Research	
	1862	1890	1862	1890
2009	80.0	2.0	0.0	0.0
2010	80.0	2.0	0.0	0.0
2011	80.0	2.2	0.0	0.0
2012	80.0	2.4	0.0	0.0
2013	80.0	2.0	0.0	0.0

V(F). Planned Program (Activity)

1. Activity for the Program

• Conduct workshops and meetings
•Deliver services
•Develop products, curriculum, resources
•Provide training
•provide counseling
•Make assessments
•work with the media
•develop partnerships

2. Type(s) of methods to be used to reach direct and indirect contacts

Extension	
Direct Methods	Indirect Methods
• Demonstrations • Group Discussion • Education Class • Workshop • Other 1 (telephone calls) • One-on-One Intervention	• Other 1 (radio) • Web sites • Newsletters • TV Media Programs • Public Service Announcement

3. Description of targeted audience

Adults
Families
Youth
County Government
Administrators of Social, Human Resource and Income Maintenance Programs
Administrators of Education
Florida Based Non-governmental Organizations
Non-Florida Based Non-governmental Organizations
County Faculty and Staff
Administrators
State Faculty and Staff

V(G). Planned Program (Outputs)

1. Standard output measures

Target for the number of persons(contacts) to be reached through direct and indirect contact methods

	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Year	Target	Target	Target	Target
2009	350000	5000000	230000	0
2010	350000	5000000	230000	0
2011	350000	5000000	230000	0
2012	350000	5000000	230000	0
2013	0	0	0	0

2. (Standard Research Target) Number of Patent Applications Submitted

Expected Patent Applications

2009 :0 **2010 :**0 **2011 :** 0 **2012 :**0 **2013 :**0

3. Expected Peer Review Publications

Year	Research Target	Extension Target	Total
2009	0	35	0
2010	0	40	0
2011	0	45	0
2012	0	50	0
2013	0	0	0

V(H). State Defined Outputs

1. Output Target

- {NO DATA ENTERED}

{NO DATA ENTERED} {NO DATA ENTERED} {NO DATA ENTERED} {NO DATA ENTERED} {NO DATA ENTERED}

V(I). State Defined Outcome

O. No	Outcome Name
1	Improved competencies of Extension Faculty from inservice training
2	Improved procedures and techniques to increase volunteerism
3	Improved volunteer development procedures and techniques
4	Improved delivery of Extension programs
5	4-H program demonstrate excellence in diversity
6	Improve agricultural and environmental knowledge/skills
7	Improve skills in animal sciences
8	Develop improved family and consumer skills
9	Develop healthy lifestyle choices
10	Develop science and technology skills
11	4-H program demonstrate a safe and inclusive environment
12	4-H delivery systems demonstrate quality and excellence

Outcome #1

1. Outcome Target

Improved competencies of Extension Faculty from inservice training

2. Outcome Type : Change in Knowledge Outcome Measure

2009 : 200	**2010 :** 200	**2011 :** 200	**2012 :** 200	**2013 :** 200

3. Associated Institute Type(s)

- 1862 Extension
- 1890 Extension

4. Associated Knowledge Area(s)

- {NO DATA ENTERED}

Outcome #2

1. Outcome Target

Improved procedures and techniques to increase volunteerism

2. Outcome Type : Change in Knowledge Outcome Measure

2009 : 100	**2010 :** 100	**2011 :** 100	**2012 :** 100	**2013 :** 100

3. Associated Institute Type(s)

- 1862 Extension
- 1890 Extension

4. Associated Knowledge Area(s)

- {NO DATA ENTERED}

Outcome #3

1. Outcome Target

Improved volunteer development procedures and techniques

2. Outcome Type : Change in Knowledge Outcome Measure

2009 : 100	**2010 :** 100	**2011 :** 100	**2012 :** 100	**2013 :** 100

3. Associated Institute Type(s)

- 1862 Extension
- 1890 Extension

4. Associated Knowledge Area(s)

- {NO DATA ENTERED}

Outcome #4

1. Outcome Target

Improved delivery of Extension programs

2. Outcome Type : Change in Knowledge Outcome Measure

2009 : 50	**2010 :** 50	**2011 :** 50	**2012 :** 50	**2013 :** 50

3. Associated Institute Type(s)

- 1862 Extension
- 1890 Extension

4. Associated Knowledge Area(s)

- 806 - Youth Development

Outcome #5

1. Outcome Target

4-H program demonstrate excellence in diversity

2. Outcome Type : Change in Knowledge Outcome Measure

2009 :	**2010 :**	**2011 :**	**2012 :**	**2013 :**
50	50	50	50	50

3. Associated Institute Type(s)

•1862 Extension
•1890 Extension

4. Associated Knowledge Area(s)

- 806 - Youth Development

Outcome #6

1. Outcome Target

Improve agricultural and environmental knowledge/skills

2. Outcome Type : Change in Knowledge Outcome Measure

2009 :	**2010 :**	**2011 :**	**2012 :**	**2013 :**
200	200	200	200	200

3. Associated Institute Type(s)

•1862 Extension
•1890 Extension

4. Associated Knowledge Area(s)

- 806 - Youth Development

Outcome #7

1. Outcome Target

Improve skills in animal sciences

2. Outcome Type : Change in Knowledge Outcome Measure

2009 :	**2010 :**	**2011 :**	**2012 :**	**2013 :**
200	200	200	200	200

3. Associated Institute Type(s)

•1862 Extension
•1890 Extension

4. Associated Knowledge Area(s)

- 806 - Youth Development

Outcome #8

1. Outcome Target

Develop improved family and consumer skills

2. Outcome Type : Change in Knowledge Outcome Measure

2009 :	**2010 :**	**2011 :**	**2012 :**	**2013 :**
200	200	200	200	200

3. Associated Institute Type(s)

•1862 Extension
•1890 Extension

4. Associated Knowledge Area(s)

- 806 - Youth Development

Outcome #9

1. Outcome Target

Develop healthy lifestyle choices

2. Outcome Type : Change in Knowledge Outcome Measure

2009 :	**2010 :**	**2011 :**	**2012 :**	**2013 :**
400	400	400	400	400

3. Associated Institute Type(s)

•1862 Extension
•1890 Extension

4. Associated Knowledge Area(s)

- 806 - Youth Development

Outcome #10

1. Outcome Target

Develop science and technology skills

2. Outcome Type : Change in Knowledge Outcome Measure

2009 :	**2010 :**	**2011 :**	**2012 :**	**2013 :**
300	300	300	300	300

3. Associated Institute Type(s)

•1862 Extension

4. Associated Knowledge Area(s)

- 806 - Youth Development

Outcome #11

1. Outcome Target

4-H program demonstrate a safe and inclusive environment

2. Outcome Type : Change in Knowledge Outcome Measure

2009 :	**2010 :**	**2011 :**	**2012 :**	**2013 :**
200	200	200	200	200

3. Associated Institute Type(s)

•1862 Extension
•1890 Extension

4. Associated Knowledge Area(s)

- 806 - Youth Development

Outcome #12

1. Outcome Target

4-H delivery systems demonstrate quality and excellence

2. Outcome Type : Change in Knowledge Outcome Measure

2009 :	2010 :	2011 :	2012 :	2013 :
100	100	100	100	100

3. Associated Institute Type(s)

- 1862 Extension
- 1890 Extension

4. Associated Knowledge Area(s)

- 806 - Youth Development

V(J). Planned Program (External Factors)

1. External Factors which may affect Outcomes

- Natural Disasters (drought,weather extremes,etc.)
- Economy
- Appropriations changes
- Public Policy changes
- Government Regulations
- Competing Public priorities
- Competing Programatic Challenges
- Populations changes (immigration,new cultural groupings,etc.)

Description

Florida is a state located in the tropics. Natural disasters such as tropical storms and hurricanes are common annual occurrences in this state. Severe weather conditions such as droughts frequently led to large-scale fires. We also have other weather extremes such as floods leading to large scale damage especially along the coastal regions. All of these can have a direct and indirect impact on youth programs.

Because of limited resources in Florida and continuing devolution youth programs can always be affected by changing public and governemental priorities. These can include appropriations. Natural and national disasters can also affect the number of volunteers available to work with youth.

Changes in state, county and federal appropriations can also affect the outcomes related to youth.

V(K). Planned Program (Evaluation Studies and Data Collection)

1. Evaluation Studies Planned

- After Only (post program)
- Retrospective (post program)
- Before-After (before and after program)
- During (during program)
- Time series (multiple points before and after program)
- Case Study
- Comparisons between program participants (individuals,group,organizations) and non-participants
- Comparisons between different groups of individuals or program participants experiencing different levels of program intensity.
- Comparison between locales where the program operates and sites without program intervention

Description

The Florida land-grant college understands the value of evaluation in our annual program plan. Methods of evaluation are included as part of the annual faculty activity plan of work and report of accomplishment process (unifas). This information is collected as part of the logic model used in our Florida system and will be available for the CSREES reports of accomplishment on a yearly basis.

2. Data Collection Methods

- Sampling
- Whole population
- Mail
- Telephone
- On-Site
- Structured
- Unstructured
- Case Study
- Observation
- Portfolio Reviews
- Tests

Description

The Florida land-grant colleges use acceptable forms of qualitative and quantitative data collection methods.

V(A). Planned Program (Summary)

Program #4

1. Name of the Planned Program

Create and Maintain Florida Friendly Landscapes: The Smart Way to Grow

2. Brief summary about Planned Program

In order to create and maintain Florida friendly landscapes Florida Extension teaches how to "grow smart" through educational programs in the areas of:

- •Commercial horticulture/urban forestry services
- •Residential landscapes
- •Florida Yards and Neighborhoods (FYN)

3. Program existence : Intermediate (One to five years)

4. Program duration : Long-Term (More than five years)

5. Expending formula funds or state-matching funds : Yes

6. Expending other than formula funds or state-matching funds : No

V(B). Program Knowledge Area(s)

1. Program Knowledge Areas and Percentage

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
101	Appraisal of Soil Resources	5%	5%	5%	
102	Soil, Plant, Water, Nutrient Relationships	5%	5%	5%	
112	Watershed Protection and Management	5%	5%	5%	
133	Pollution Prevention and Mitigation	5%	5%	5%	
201	Plant Genome, Genetics, and Genetic Mechanisms	5%	5%	5%	
204	Plant Product Quality and Utility (Preharvest)	5%	5%	5%	
205	Plant Management Systems	5%	5%	5%	
206	Basic Plant Biology	5%	5%	5%	
211	Insects, Mites, and Other Arthropods Affecting Plants	5%	5%	5%	
212	Pathogens and Nematodes Affecting Plants	5%	5%	5%	
213	Weeds Affecting Plants	5%	5%	5%	
216	Integrated Pest Management Systems	5%	5%	5%	
405	Drainage and Irrigation Systems and Facilities	5%	5%	5%	
602	Business Management, Finance, and Taxation	5%	5%	5%	
603	Market Economics	5%	5%	5%	

604	Marketing and Distribution Practices	5%	5%	5%	
608	Community Resource Planning and Development	5%	5%	5%	
610	Domestic Policy Analysis	5%	5%	5%	
723	Hazards to Human Health and Safety	5%	5%	5%	
802	Human Development and Family Well-Being	5%	5%	5%	
	Total	100%	100%	100%	

V(C). Planned Program (Situation and Scope)

1. Situation and priorities

The state of Florida includes 19 million residents, 58 million annual visitors, a unique ecology and climate, and a wide range of plant material grown year round. Frequently the residents, visitors and property managers have unrealistic expectations. These expectations may encourage customers to use landscape maintenance practices that have negative impacts on Florida's environment. Many of these people are dependent on professional horticulture service providers to make decisions regarding the landscape management of their properties.The professional horticulture services industry in Florida has a tremendous economic impact. According to the 2002 FNGA/IFAS Economic Impact Study this industry generates $7.6 billion per year in estimated revenues. This industry also employs more than 120,000 people who make thousands of horticulture and pest management decisions daily. A large and growing portion of this work force is Hispanic.IFAS/Extension research and science-based educational programs can provide the green industry with best management practices and skills necessary to create and manage landscapes with reduced risk to the environment.

Florida has just over 5 million acres of lawns, many of which are in close proximity to water bodies. To reduce non-point source pollution and preserve these water resources and natural areas, it is critical that lawns and landscapes are managed with an environmental emphasis. Development of Best Management Practices (BMPs) for lawns and landscapes is one way to achieve this. How fertilizer is handled, stored, and applied and how water is used in the landscape can have a large effect on reduction of non-point source pollution. These principles should be followed by commercial horticulture services as well as homeowners.

Many Florida residents - new, permanent, and temporary - share misperceptions about proper landscape care. Some Green Industry/Development professionals also have inaccurate conceptions about Florida-friendly landscaping practices. Faced with Florida's diverse and often unfamiliar conditions, well-meaning individuals often waste water, fertilizers, pesticides, and energy through inappropriate landscape designs and improper landscape practices. These existing practices can contribute to the degradation of the environment through runoff, leaching, and misuse of resources.

2. Scope of the Program

- In-State Extension
- Multistate Extension
- Multistate Integrated Research and Extension
- Integrated Research and Extension

V(D). Planned Program (Assumptions and Goals)

1. Assumptions made for the Program

•People will be motivated by workshops and other educational activities to learn/change
•Information on best practices related to healthy landscapes show that these approaches work well for these target audiences
•Changes suggested in activities related to this program will improve quality of life for participants

2. Ultimate goal(s) of this Program

Improve compliance with local, state and federal regulations
Improve procedures and techniques for managing business operations
Use of BMPs for managing Florida landscapes
Improve procedures and tehcniques for handling and using agricultrual chemicals, fuels, and other product
Improve delivery of Extension programs
Improve competencies of Extension faculty from inservice training
Improve agricultural and environmental knowledge/skills
Improve volunteer development procedures and techniques

V(E). Planned Program (Inputs)

1. Estimated Number of professional FTE/SYs to be budgeted for this Program

Year	Extension		Research	
	1862	1890	1862	1890
2009	50.0	0.0	0.0	0.0
2010	50.0	0.0	0.0	0.0
2011	50.0	0.0	0.0	0.0
2012	50.0	0.0	0.0	0.0
2013	50.0	0.0	0.0	0.0

V(F). Planned Program (Activity)

1. Activity for the Program

• Conduct workshops and meetings
•Deliver services
•Develop products, curriculum, resources
•Provide training
•provide counseling
•Make assessments
•work with the media
•develop partnerships

2. Type(s) of methods to be used to reach direct and indirect contacts

Extension	
Direct Methods	Indirect Methods
• Demonstrations • Other 1 (telephone calls) • Group Discussion • Education Class • Workshop • One-on-One Intervention	• Public Service Announcement • Billboards • TV Media Programs • Web sites • Newsletters • Other 1 (radio)

3. Description of targeted audience

Homeowners
Adult Volunteers
Youth

Youth Volunteers
Administrators of Environmental Quality
County Government
Other Pubic Administrators
County Faculty and Staff
State Faculty and Staff

Individuals that own property or have established legal residency in the state of Florida.
Includes the executive, legislative, judicial, administrative and regulatory activities of Federal, State, local, and international governments.
Includes all personnel that are supervised by IFAS.
Hispanic speaking audience

V(G). Planned Program (Outputs)

1. Standard output measures

Target for the number of persons(contacts) to be reached through direct and indirect contact methods

	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Year	Target	Target	Target	Target
2009	5000000	6000000	0	0
2010	5000000	6000000	0	0
2011	5000000	6000000	0	0
2012	5000000	6000000	0	0
2013	0	0	0	0

2. (Standard Research Target) Number of Patent Applications Submitted

Expected Patent Applications

2009 :0 **2010 :**0 **2011 :** 0 **2012 :**0 **2013 :**0

3. Expected Peer Review Publications

Year	Research Target	Extension Target	Total
2009	0	30	0
2010	0	35	0
2011	0	40	0
2012	0	45	0
2013	0	0	0

V(H). State Defined Outputs

1. Output Target

- {NO DATA ENTERED}

{NO DATA ENTERED} {NO DATA ENTERED} {NO DATA ENTERED} {NO DATA ENTERED} {NO DATA ENTERED}

V(I). State Defined Outcome

O. No	Outcome Name
1	Improve compliance with local, state and federal regulations
2	Improve procedures and techniques for managing business operations
3	Use of BMPs for managing Florida landscapes
4	Improve procedures and tehcniques for handling and using agricultrual chemicals, fuels, and other product
5	Improve delivery of Extension programs
6	Improve competencies of Extension faculty from inservice training
7	Improve agricultural and environmental knowledge/skills
8	Improve volunteer development procedures and techniques

Outcome #1

1. Outcome Target

Improve compliance with local, state and federal regulations

2. Outcome Type : Change in Knowledge Outcome Measure

2009 :	**2010 :**	**2011 :**	**2012 :**	**2013 :**
50	50	50	50	50

3. Associated Institute Type(s)

•1862 Extension

4. Associated Knowledge Area(s)

- {NO DATA ENTERED}

Outcome #2

1. Outcome Target

Improve procedures and techniques for managing business operations

2. Outcome Type : Change in Knowledge Outcome Measure

2009 :	**2010 :**	**2011 :**	**2012 :**	**2013 :**
50	50	50	50	50

3. Associated Institute Type(s)

•1862 Extension
•1890 Extension

4. Associated Knowledge Area(s)

- 602 - Business Management, Finance, and Taxation
- 603 - Market Economics

Outcome #3

1. Outcome Target

Use of BMPs for managing Florida landscapes

2. Outcome Type : Change in Knowledge Outcome Measure

2009 :	**2010 :**	**2011 :**	**2012 :**	**2013 :**
400	400	400	400	400

3. Associated Institute Type(s)

•1862 Extension

4. Associated Knowledge Area(s)

- 205 - Plant Management Systems
- 206 - Basic Plant Biology
- 211 - Insects, Mites, and Other Arthropods Affecting Plants
- 212 - Pathogens and Nematodes Affecting Plants
- 213 - Weeds Affecting Plants
- 216 - Integrated Pest Management Systems
- 405 - Drainage and Irrigation Systems and Facilities

Outcome #4

1. Outcome Target

Improve procedures and tehcniques for handling and using agricultrual chemicals, fuels, and other product

2. Outcome Type : Change in Knowledge Outcome Measure

2009 : 100	**2010 :** 100	**2011 :** 100	**2012 :** 100	**2013 :** 100

3. Associated Institute Type(s)

- 1862 Extension
- 1890 Extension

4. Associated Knowledge Area(s)

- 723 - Hazards to Human Health and Safety

Outcome #5

1. Outcome Target

Improve delivery of Extension programs

2. Outcome Type : Change in Knowledge Outcome Measure

2009 : 100	**2010 :** 100	**2011 :** 100	**2012 :** 100	**2013 :** 100

3. Associated Institute Type(s)

- 1862 Extension

4. Associated Knowledge Area(s)

- {NO DATA ENTERED}

Outcome #6

1. Outcome Target

Improve competencies of Extension faculty from inservice training

2. Outcome Type : Change in Knowledge Outcome Measure

2009 : 100	**2010 :** 100	**2011 :** 100	**2012 :** 100	**2013 :** 100

3. Associated Institute Type(s)

- 1862 Extension

4. Associated Knowledge Area(s)

- {NO DATA ENTERED}

Outcome #7

1. Outcome Target

Improve agricultural and environmental knowledge/skills

2. Outcome Type : Change in Knowledge Outcome Measure

2009 : 100	**2010 :** 100	**2011 :** 100	**2012 :** 100	**2013 :** 100

3. Associated Institute Type(s)

- 1862 Extension

4. Associated Knowledge Area(s)

- 112 - Watershed Protection and Management

- 133 - Pollution Prevention and Mitigation

Outcome #8

1. Outcome Target

Improve volunteer development procedures and techniques

2. Outcome Type : Change in Knowledge Outcome Measure

2009 : 100 **2010 :** 100 **2011 :** 100 **2012 :** 100 **2013 :** 100

3. Associated Institute Type(s)

•1862 Extension

4. Associated Knowledge Area(s)

- 802 - Human Development and Family Well-Being

V(J). Planned Program (External Factors)

1. External Factors which may affect Outcomes

- Competing Programatic Challenges
- Appropriations changes
- Natural Disasters (drought,weather extremes,etc.)
- Public Policy changes
- Government Regulations
- Economy
- Competing Public priorities

Description

Florida is a state located in the tropics. Natural disasters such as tropical storms and hurricanes are common annual occurrences in this state. Severe weather conditions such as droughts frequently led to large-scale fires. We also have other weather extremes such as floods leading to large scale damage especially along the coastal regions.

Florida also has three international shipping ports: Miami, Jacksonville and Tampa. These cities all have international airports. Along with this we have over 53 million tourists visiting from around the world. It has been estimated that this international influx into Florida has made us the entry point of one new invasive pest, plant or disease each week. Any of this could be an external factor affecting land-grant outcomes.

Changes in state, county and federal appropriations can also affect the outcomes.

V(K). Planned Program (Evaluation Studies and Data Collection)

1. Evaluation Studies Planned

- During (during program)
- Before-After (before and after program)
- Case Study

Description

The Florida land-grant college understands the value of evaluation in our annual program plan. Methods of evaluation are included as part of the annual faculty activity plan of work and report of accomplishment process (unifas). This information is collected as part of the logic model used in our Florida system and will be available for the CSREES reports of accomplishment on a yearly basis.

2. Data Collection Methods

- On-Site
- Observation
- Telephone
- Sampling
- Mail
- Other (online)
- Whole population
- Unstructured
- Case Study
- Structured
- Portfolio Reviews
- Tests

Description

The Florida land-grant colleges use acceptable forms of qualitative and quantitative data collection methods.

V(A). Planned Program (Summary)

Program #5

1. Name of the Planned Program

Promote Individual, family, and community well-being and economic security

2. Brief summary about Planned Program

In the program designed to assist individuals and families to achieve economic well-being and life quality the following areas must be considered:

- •Personal and Family Well-being
- •Financial Management and Economic Well-being
- •Nutrition Food Safety and Health
- •Housing and Environment
- •Non-profit Organizations, Leadership and Volunteer Development

3. Program existence : Intermediate (One to five years)

4. Program duration : Long-Term (More than five years)

5. Expending formula funds or state-matching funds : Yes

6. Expending other than formula funds or state-matching funds : No

V(B). Program Knowledge Area(s)

1. Program Knowledge Areas and Percentage

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
112	Watershed Protection and Management	5%	5%	5%	
136	Conservation of Biological Diversity	5%	5%	5%	
602	Business Management, Finance, and Taxation	5%	5%	5%	
603	Market Economics	5%	5%	5%	
604	Marketing and Distribution Practices	5%	5%	5%	
608	Community Resource Planning and Development	5%	5%	5%	
701	Nutrient Composition of Food	5%	5%	5%	
703	Nutrition Education and Behavior	5%	5%	5%	
712	Protect Food from Contamination by Pathogenic Microorganisms, Pa	5%	5%	5%	
723	Hazards to Human Health and Safety	5%	5%	5%	
724	Healthy Lifestyle	5%	5%	5%	
801	Individual and Family Resource Management	5%	5%	5%	
802	Human Development and Family Well-Being	5%	5%	5%	
803	Sociological and Technological Change Affecting Individuals, Familie	5%	5%	5%	
804	Human Environmental Issues Concerning Apparel, Textiles, and Res	5%	5%	5%	

805	Community Institutions, Health, and Social Services	5%	5%	5%	
806	Youth Development	5%	5%	5%	
901	Program and Project Design, and Statistics	5%	5%	5%	
902	Administration of Projects and Programs	5%	5%	5%	
903	Communication, Education, and Information Delivery	5%	5%	5%	
	Total	100%	100%	100%	

V(C). Planned Program (Situation and Scope)

1. Situation and priorities

Situation StatementFlorida is a rapidly growing state with a very diverse population. Many Floridians face special needs and issues that must be addressed. People are living longer – but not planning adequately for retirement, a time when costs for medical services and living assistance can be significant. Florida has the highest percentage of residents over the age of 65 in the nation. Lifestyle related chronic illnesses, such as diabetes, obesity, and circulatory diseases are on the rise. Poor food choices create health and developmental related problems for people of all ages, and are of critical concern for young mothers and their infants. Florida is one of the top 10 states nationwide in the incidence of food-borne diseases. Of these, about half are attributed to food service operations. Health care costs are increasing more rapidly than other costs, and many people are without healthcare insurance.Personal indebtedness, especially credit card debt is at an all-time high and savings at an all-time low. Although the state and nation is moving toward automation and a cashless society, many Floridians, especially low income families and recent emigrants from third-world nations do not use any type of banking service; most are poor managers of their finances. More than one-fourth of Florida's adults have difficulty making accurate change in a financial transaction. Low-to-moderate income families are finding it difficult to find affordable housing. During the ten-year period of 1992-2002 housing costs increased from 20.2 percent to 35 percent of an average household income. The structural integrity of residences or ability to withstand hurricanes and other severe weather conditions is now becoming an important concern of Floridians. Also, the indoor air quality of a residence can affect the health of its residents, especially those with respiratory problems such as asthma, a major problem with children in Florida.Florida's families are diverse and include teenage parents, single parents, duel earner families, stepparents, grandparents raising grandchildren, and traditional two-parent families. Single parents head almost one-third of the families. With 57 percent of the women with children under the age of 6 and 66 percent of those with children 6 to 17 employed there is a critical need for affordable, quality childcare.Extension uses unpaid volunteers to expand its outreach programs. The volunteers contribute to the development of their communities and provide social capital through the development of their leadership capabilities and cooperative work. They generate cross-community channels of communication and receive training that benefits both the individuals and their communities.

2. Scope of the Program

- In-State Extension
- Multistate Integrated Research and Extension
- Integrated Research and Extension
- Multistate Extension

V(D). Planned Program (Assumptions and Goals)

1. Assumptions made for the Program

For the economically disadvantage, a large majority of the elderly, and many families the quality of life in Florida needs to

improve. Research has confirmed that providing education and support services to families significantly reduces many problems such as child abuse, debt, and bad eating habits. Reducing and/or improving these issues can result in better health physcially and financially, a better outlook on life and more functional family units.

2. Ultimate goal(s) of this Program

Improve competencies of Extension faculty from inservice training
improved delivery of Extension programs
Improved practices to strengthen individuals, couples, and families
Improved knowledge and skills of professionals who work with individuals, couples and families
Promote self reliance and independence
Encourage community diversity and harmony
Improve and enhance responsiveness to community
Enhance community engagement and awareness of resources
improved procedures and techniques to manage debt
improved procedures and techniques to manage assets
improved procedures and techniques to reduce fraud
Develop improved family and consumer skills
Improve nutrition and other lifestyle behaviors
Improved procedures and techniques for handling and preparing food
Improved management of food resources
Develop improved family and consumer skills
Develop healthy lifestyle choices
Improve procedures and techniques to improve home ownership
Improve procedures and techniques to maintain a healthy and safe home
Improve procedures and techniques to increas low-impact development (LID)
Improve compliance with local, state, and federal regulations
Improve construction and/or developmen/redevelopment procedures and techniques

V(E). Planned Program (Inputs)

1. Estimated Number of professional FTE/SYs to be budgeted for this Program

Year	Extension		Research	
	1862	1890	1862	1890
2009	84.0	1.0	0.0	0.0
2010	84.0	1.0	0.0	0.0
2011	84.0	1.0	0.0	0.0
2012	84.0	1.0	0.0	0.0
2013	84.0	1.0	0.0	0.0

V(F). Planned Program (Activity)

1. Activity for the Program

- Conduct workshops and meetings
- Deliver services
- Develop products, curriculum, resources
- Provide training
- provide counseling
- Make assessments
- work with the media
- develop partnerships

2. Type(s) of methods to be used to reach direct and indirect contacts

Extension	
Direct Methods	**Indirect Methods**
• Other 1 (telephone calls) • One-on-One Intervention • Group Discussion • Workshop • Education Class • Demonstrations	• Public Service Announcement • Web sites • Newsletters • TV Media Programs • Other 1 (radio)

3. Description of targeted audience

Childcare Operations
Individual and Family Service Operations

Includes all for profit business or industries.
Individuals that own property or have established legal residency in the state of Florida.
Includes all personnel that are supervised by IFAS.
Finance, Insurance, and Real Estate Operations
Adults
Families
Youth
Administrators of Education
Administrators of Social, Human Resource and Income Maintenance Programs
Florida Based Non-governmental Organizations

V(G). Planned Program (Outputs)

1. Standard output measures

Target for the number of persons(contacts) to be reached through direct and indirect contact methods

	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Year	Target	Target	Target	Target
2009	700000	9000000	0	0
2010	700000	9000000	0	0
2011	700000	9000000	0	0
2012	700000	9000000	0	0
2013	0	0	0	0

2. (Standard Research Target) Number of Patent Applications Submitted

Expected Patent Applications

2009 :0 **2010 :**0 **2011 :** 0 **2012 :**0 **2013 :**0

3. Expected Peer Review Publications

Year	Research Target	Extension Target	Total
2009	0	35	0
2010	0	40	0
2011	0	45	0
2012	0	50	0
2013	0	0	0

V(H). State Defined Outputs

1. Output Target

- {NO DATA ENTERED}

{NO DATA ENTERED} {NO DATA ENTERED} {NO DATA ENTERED} {NO DATA ENTERED} {NO DATA ENTERED}

V(I). State Defined Outcome

O. No	Outcome Name
1	Improve competencies of Extension faculty from inservice training
2	improved delivery of Extension programs
3	Improved practices to strengthen individuals, couples, and families
4	Improved knowledge and skills of professionals who work with individuals, couples and families
5	Promote self reliance and independence
6	Encourage community diversity and harmony
7	Improve and enhance responsiveness to community
8	Enhance community engagement and awareness of resources
9	improved procedures and techniques to manage debt
10	improved procedures and techniques to manage assets
11	improved procedures and techniques to reduce fraud
12	Develop improved family and consumer skills
13	Improve nutrition and other lifestyle behaviors
14	Improved procedures and techniques for handling and preparing food
15	Improved management of food resources
16	Develop improved family and consumer skills
17	Improve procedures and techniques to improve home ownership
18	Improve procedures and techniques to maintain a healthy and safe home
19	Improve procedures and techniques to increas low-impact development (LID)
20	Improve compliance with local, state, and federal regulations
21	Improve construction and/or developmen/redevelopment procedures and techniques

Outcome #1

1. Outcome Target

Improve competencies of Extension faculty from inservice training

2. Outcome Type : Change in Knowledge Outcome Measure

2009 :	2010 :	2011 :	2012 :	2013 :
0	0	0	0	0

3. Associated Institute Type(s)

- 1862 Extension
- 1890 Extension

4. Associated Knowledge Area(s)

- {NO DATA ENTERED}

Outcome #2

1. Outcome Target

improved delivery of Extension programs

2. Outcome Type : Change in Knowledge Outcome Measure

2009 :	2010 :	2011 :	2012 :	2013 :
0	0	0	0	0

3. Associated Institute Type(s)

- 1862 Extension
- 1890 Extension

4. Associated Knowledge Area(s)

- {NO DATA ENTERED}

Outcome #3

1. Outcome Target

Improved practices to strengthen individuals, couples, and families

2. Outcome Type : Change in Knowledge Outcome Measure

2009 :	2010 :	2011 :	2012 :	2013 :
100	100	100	100	100

3. Associated Institute Type(s)

- 1862 Extension
- 1890 Extension

4. Associated Knowledge Area(s)

- 801 - Individual and Family Resource Management
- 802 - Human Development and Family Well-Being

Outcome #4

1. Outcome Target

Improved knowledge and skills of professionals who work with individuals, couples and families

2. Outcome Type : Change in Knowledge Outcome Measure

2009 :	2010 :	2011 :	2012 :	2013 :
0	0	0	0	0

3. Associated Institute Type(s)

•1862 Extension
•1890 Extension

4. Associated Knowledge Area(s)

- {NO DATA ENTERED}

Outcome #5

1. Outcome Target

Promote self reliance and independence

2. Outcome Type : Change in Knowledge Outcome Measure

2009 : 0	**2010 :** 0	**2011 :** 0	**2012 :** 0	**2013 :** 0

3. Associated Institute Type(s)

•1862 Extension
•1890 Extension

4. Associated Knowledge Area(s)

- {NO DATA ENTERED}

Outcome #6

1. Outcome Target

Encourage community diversity and harmony

2. Outcome Type : Change in Knowledge Outcome Measure

2009 : 0	**2010 :** 0	**2011 :** 0	**2012 :** 0	**2013 :** 0

3. Associated Institute Type(s)

•1862 Extension
•1890 Extension

4. Associated Knowledge Area(s)

- {NO DATA ENTERED}

Outcome #7

1. Outcome Target

Improve and enhance responsiveness to community

2. Outcome Type : Change in Knowledge Outcome Measure

2009 : 0	**2010 :** 0	**2011 :** 0	**2012 :** 0	**2013 :** 0

3. Associated Institute Type(s)

•1862 Extension
•1890 Extension

4. Associated Knowledge Area(s)

- {NO DATA ENTERED}

Outcome #8

1. Outcome Target

Enhance community engagement and awareness of resources

2. Outcome Type : Change in Knowledge Outcome Measure

2009 :	2010 :	2011 :	2012 :	2013 :
0	0	0	0	0

3. Associated Institute Type(s)

- 1862 Extension
- 1890 Extension

4. Associated Knowledge Area(s)

- {NO DATA ENTERED}

Outcome #9

1. Outcome Target

improved procedures and techniques to manage debt

2. Outcome Type : Change in Knowledge Outcome Measure

2009 :	2010 :	2011 :	2012 :	2013 :
0	0	0	0	0

3. Associated Institute Type(s)

- 1862 Extension
- 1890 Extension

4. Associated Knowledge Area(s)

- {NO DATA ENTERED}

Outcome #10

1. Outcome Target

improved procedures and techniques to manage assets

2. Outcome Type : Change in Knowledge Outcome Measure

2009 :	2010 :	2011 :	2012 :	2013 :
0	0	0	0	0

3. Associated Institute Type(s)

- 1862 Extension
- 1890 Extension

4. Associated Knowledge Area(s)

- {NO DATA ENTERED}

Outcome #11

1. Outcome Target

improved procedures and techniques to reduce fraud

2. Outcome Type : Change in Knowledge Outcome Measure

2009 :	2010 :	2011 :	2012 :	2013 :
0	0	0	0	0

3. Associated Institute Type(s)

- 1862 Extension
- 1890 Extension

4. Associated Knowledge Area(s)

- {NO DATA ENTERED}

Outcome #12

1. Outcome Target

Develop improved family and consumer skills

2. Outcome Type : Change in Knowledge Outcome Measure

2009 : 0	**2010 :** 0	**2011 :** 0	**2012 :** 0	**2013 :** 0

3. Associated Institute Type(s)

- 1862 Extension
- 1890 Extension

4. Associated Knowledge Area(s)

- {NO DATA ENTERED}

Outcome #13

1. Outcome Target

Improve nutrition and other lifestyle behaviors

2. Outcome Type : Change in Knowledge Outcome Measure

2009 : 0	**2010 :** 0	**2011 :** 0	**2012 :** 0	**2013 :** 0

3. Associated Institute Type(s)

- 1862 Extension
- 1890 Extension

4. Associated Knowledge Area(s)

- {NO DATA ENTERED}

Outcome #14

1. Outcome Target

Improved procedures and techniques for handling and preparing food

2. Outcome Type : Change in Knowledge Outcome Measure

2009 : 0	**2010 :** 0	**2011 :** 0	**2012 :** 0	**2013 :** 0

3. Associated Institute Type(s)

- 1862 Extension
- 1890 Extension

4. Associated Knowledge Area(s)

- {NO DATA ENTERED}

Outcome #15

1. Outcome Target

Improved management of food resources

2. Outcome Type : Change in Knowledge Outcome Measure

2009 : 0	**2010 :** 0	**2011 :** 0	**2012 :** 0	**2013 :** 0

3. Associated Institute Type(s)

- 1862 Extension
- 1890 Extension

4. Associated Knowledge Area(s)

- {NO DATA ENTERED}

Outcome #16

1. Outcome Target

Develop improved family and consumer skills

2. Outcome Type : Change in Knowledge Outcome Measure

2009 :0	**2010 :** 0	**2011 :** 0	**2012 :**0	**2013 :** 0

3. Associated Institute Type(s)

•1862 Extension
•1890 Extension

4. Associated Knowledge Area(s)

- {NO DATA ENTERED}

Outcome #17

1. Outcome Target

Improve procedures and techniques to improve home ownership

2. Outcome Type : Change in Knowledge Outcome Measure

2009 :0	**2010 :** 0	**2011 :** 0	**2012 :**0	**2013 :** 0

3. Associated Institute Type(s)

•1862 Extension
•1890 Extension

4. Associated Knowledge Area(s)

- {NO DATA ENTERED}

Outcome #18

1. Outcome Target

Improve procedures and techniques to maintain a healthy and safe home

2. Outcome Type : Change in Knowledge Outcome Measure

2009 :0	**2010 :** 0	**2011 :** 0	**2012 :**0	**2013 :** 0

3. Associated Institute Type(s)

•1862 Extension
•1890 Extension

4. Associated Knowledge Area(s)

- {NO DATA ENTERED}

Outcome #19

1. Outcome Target

Improve procedures and techniques to increas low-impact development (LID)

2. Outcome Type : Change in Knowledge Outcome Measure

2009 :0	**2010 :** 0	**2011 :** 0	**2012 :**0	**2013 :** 0

3. Associated Institute Type(s)

•1862 Extension
•1890 Extension

4. Associated Knowledge Area(s)

- {NO DATA ENTERED}

Outcome #20

1. Outcome Target

Improve compliance with local, state, and federal regulations

2. Outcome Type : Change in Knowledge Outcome Measure

2009 :0	**2010 :** 0	**2011 :** 0	**2012 :**0	**2013 :** 0

3. Associated Institute Type(s)

•1862 Extension
•1890 Extension

4. Associated Knowledge Area(s)

- {NO DATA ENTERED}

Outcome #21

1. Outcome Target

Improve construction and/or developmen/redevelopment procedures and techniques

2. Outcome Type : Change in Knowledge Outcome Measure

2009 :0	**2010 :** 0	**2011 :** 0	**2012 :**0	**2013 :** 0

3. Associated Institute Type(s)

•1862 Extension
•1890 Extension

4. Associated Knowledge Area(s)

- {NO DATA ENTERED}

V(J). Planned Program (External Factors)

1. External Factors which may affect Outcomes

- Natural Disasters (drought,weather extremes,etc.)
- Public Policy changes
- Economy
- Appropriations changes
- Competing Public priorities
- Government Regulations
- Competing Programatic Challenges

Description

Florida is a state located in the tropics. Natural disasters such as tropical storms and hurricanes are common annual occurrences in this state. Severe weather conditions such as droughts frequently led to large-scale fires. We also have other weather extremes such as floods leading to large scale damage especially along the coastal regions.

Florida is a state with constant demographic changes. The influx of immigrants, elderly, increasing birthrates and changing demographics that occur because of natural disasters such as hurricanes can change population demographics quickly.

Dwindling resources can have an effect on public priorities that directly affect dollars earmarked for individual and family

educational programs.

Changes in state, county and federal appropriations can also affect the outcomes.

V(K). Planned Program (Evaluation Studies and Data Collection)

1. Evaluation Studies Planned

- Comparisons between program participants (individuals,group,organizations) and non-participants
- Comparison between locales where the program operates and sites without program intervention
- Time series (multiple points before and after program)
- Before-After (before and after program)
- Retrospective (post program)
- Case Study
- Comparisons between different groups of individuals or program participants experiencing different levels of program intensity.
- After Only (post program)
- During (during program)

Description

The Florida land-grant college understands the value of evaluation in our annual program plan. Methods of evaluation are included as part of the annual faculty activity plan of work and report of accomplishment process (unifas). This information is collected as part of the logic model used in our Florida system and will be available for the CSREES reports of accomplishment on a yearly basis.

2. Data Collection Methods

- Whole population
- Observation
- Structured
- On-Site
- Mail
- Case Study
- Sampling
- Telephone
- Unstructured
- Tests

Description

The Florida land-grant colleges use acceptable forms of qualitative and quantitative data collection methods.

V(A). Planned Program (Summary)

Program #6

1. Name of the Planned Program

Healthy Communities

2. Brief summary about Planned Program

Healthy communities are developed by:
- Addressing the urban/rural interface
- Broad-based citizen participation and active communities
- Economic diversity
- Community Preparedness

3. Program existence : Intermediate (One to five years)

4. Program duration : Long-Term (More than five years)

5. Expending formula funds or state-matching funds : Yes

6. Expending other than formula funds or state-matching funds : No

V(B). Program Knowledge Area(s)

1. Program Knowledge Areas and Percentage

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
608	Community Resource Planning and Development	20%	20%	20%	
610	Domestic Policy Analysis	20%	20%	20%	
723	Hazards to Human Health and Safety	10%	10%	10%	
724	Healthy Lifestyle	5%	5%	5%	
802	Human Development and Family Well-Being	10%	10%	10%	
803	Sociological and Technological Change Affecting Individuals, Familie	10%	10%	10%	
805	Community Institutions, Health, and Social Services	5%	5%	5%	
806	Youth Development	5%	5%	5%	
902	Administration of Projects and Programs	5%	5%	5%	
903	Communication, Education, and Information Delivery	10%	10%	10%	
	Total	100%	100%	100%	

V(C). Planned Program (Situation and Scope)

1. Situation and priorities

Situation StatementThere are hundreds of municipalities in Florida, ranging from Islandia with 5 residents to the Greater Miami area with well over one million. Each Florida community has its own history and special flavor, as well as plans and hopes. The citizens of any community have the goal of working together to improve the quality of their lives and increase their opportunities.For communities to grow, they must have the active interest and involvement of citizens in the form of a rich civic life. In this way, citizens come together to discuss and debate the needs and directions for their community. Then, once the decisions are made, citizens must come together to make and execute their plans. Another requirement for growth and opportunity is a robust economy. In Florida, a significant basis for such an economy is the natural environment, in terms of natural resources and natural beauty. Together, these account for much of Florida's overall economy in the forms of tourism, industry, recreation and agriculture. Most communities in Florida are looking to one or more of these areas as sources of economic growth.As much as citizens and leaders might desire to have vibrant, cooperative communities, the skills needed to achieve this must be learned. Communities need guidance and expertise. They need support and information.Hanging over all plans and achievements, however, is the possibility of disaster. In the last ten years or so, Florida has sustained major natural disasters, including devastating

hurricanes and drought. These disasters have challenged --- and in one case, leveled --- communities. A hurricane or tornado can cause irreparable damage to a community, and a severe drought can change the economic welfare of an entire region.The past two years have made all Floridians aware of other threats to the stability of our communities. Every community must now have some response ready in case of an intentional attack. These attacks can take many forms, including bombings and the introduction of disease agents.Central to the life of our communities are the lives of their citizens, and that means working for their safety in the everyday hazards they face in their homes and workplaces. Florida's natural environment and large agricultural sector expose Florida citizens to a wide range of personal hazards or the possibility of creating hazards for others. As concerned as we are about large-scale emergencies, Floridians are much more likely to face death or injury through equipment or situations they encounter everyday.Whatever our communities are confronted with, Extension must be ready to play its role. Through its reputation for community involvement and quality information, Extension has special capabilities that can assist communities in valuable ways during good times and bad.

2. Scope of the Program

- Multistate Extension
- In-State Extension
- Multistate Integrated Research and Extension
- Integrated Research and Extension

V(D). Planned Program (Assumptions and Goals)

1. Assumptions made for the Program

People will be motivated by workshops and other educational activities to learn/change related to community issues.
Changes suggested in activities related to this program will improve quality of life for participants

2. Ultimate goal(s) of this Program

Improve delivery of Extension programs
Florida citizens participate more fully and effectively in the decision making that affect their communities
Improve procedures and techniques to resolve conflict
Improve competencies of Extension faculty from in-service training
Improved procedures and techniques to retain and expand businesses
Improved business environment
improved business management practices

V(E). Planned Program (Inputs)

1. Estimated Number of professional FTE/SYs to be budgeted for this Program

Year	Extension		Research	
	1862	1890	1862	1890
2009	3.0	0.5	0.0	0.0
2010	3.0	0.5	0.0	0.0
2011	3.0	0.5	0.0	0.0
2012	3.0	0.5	0.0	0.0
2013	3.0	0.5	0.0	0.0

V(F). Planned Program (Activity)

1. Activity for the Program

• Conduct workshops and meetings
•Deliver services
•Develop products, curriculum, resources
•Provide training

•provide counseling
•Make assessments
•work with the media
•develop partnerships

2. Type(s) of methods to be used to reach direct and indirect contacts

Extension	
Direct Methods	**Indirect Methods**
• Group Discussion • One-on-One Intervention • Demonstrations • Education Class • Other 1 (telephone calls) • Workshop	• Public Service Announcement • Newsletters • Other 1 (radio) • TV Media Programs • Web sites

3. Description of targeted audience

Improved delivery of Extension programs
Improved competencies of Extension faculty from in-service training
Improved procedures and techniques to retain and expand businesses
Improved business environment
Improved business management practices
Improved procedures and techniques for managing population growth
Improved procedures and techniques to reslove conflict
Florida citizens participate more fully and effectively in the decision making that affect their communities
Improving planning for disasters

V(G). Planned Program (Outputs)

1. Standard output measures

Target for the number of persons(contacts) to be reached through direct and indirect contact methods

	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Year	Target	Target	Target	Target
2009	42000	2800000	0	0
2010	42000	2800000	0	0
2011	42000	2800000	0	0
2012	42000	2800000	0	0
2013	0	0	0	0

2. (Standard Research Target) Number of Patent Applications Submitted

Expected Patent Applications

2009 :0 **2010 :**0 **2011 :** 0 **2012 :**0 **2013 :**0

3. Expected Peer Review Publications

Year	Research Target	Extension Target	Total
2009	0	6	0
2010	0	7	0
2011	0	8	0
2012	0	9	0
2013	0	0	0

V(H). State Defined Outputs

1. Output Target

- {NO DATA ENTERED}

{NO DATA ENTERED} {NO DATA ENTERED} {NO DATA ENTERED} {NO DATA ENTERED} {NO DATA ENTERED}

V(I). State Defined Outcome

O. No	Outcome Name
1	Improve delivery of Extension programs
2	Florida citizens participate more fully and effectively in the decision making that affect their communities
3	Improve procedures and techniques to resolve conflict
4	Improve competencies of Extension faculty from in-service training
5	Improved procedures and techniques to retain and expand businesses
6	Improved business environment
7	improved business management practices

Outcome #1

1. Outcome Target

Improve delivery of Extension programs

2. Outcome Type : Change in Knowledge Outcome Measure

2009 :0	**2010 :** 0	**2011 :** 0	**2012 :**0	**2013 :** 0

3. Associated Institute Type(s)

•1862 Extension

4. Associated Knowledge Area(s)

- {NO DATA ENTERED}

Outcome #2

1. Outcome Target

Florida citizens participate more fully and effectively in the decision making that affect their communities

2. Outcome Type : Change in Knowledge Outcome Measure

2009 :0	**2010 :** 0	**2011 :** 0	**2012 :**0	**2013 :** 0

3. Associated Institute Type(s)

•1862 Extension

4. Associated Knowledge Area(s)

- {NO DATA ENTERED}

Outcome #3

1. Outcome Target

Improve procedures and techniques to resolve conflict

2. Outcome Type : Change in Knowledge Outcome Measure

2009 :0	**2010 :** 0	**2011 :** 0	**2012 :**0	**2013 :** 0

3. Associated Institute Type(s)

•1862 Extension

4. Associated Knowledge Area(s)

- {NO DATA ENTERED}

Outcome #4

1. Outcome Target

Improve competencies of Extension faculty from in-service training

2. Outcome Type : Change in Knowledge Outcome Measure

2009 :0	**2010 :** 0	**2011 :** 0	**2012 :**0	**2013 :** 0

3. Associated Institute Type(s)

•1862 Extension

4. Associated Knowledge Area(s)

- {NO DATA ENTERED}

Outcome #5

1. Outcome Target

Improved procedures and techniques to retain and expand businesses

2. Outcome Type : Change in Knowledge Outcome Measure

2009 : 0	**2010 :** 0	**2011 :** 0	**2012 :** 0	**2013 :** 0

3. Associated Institute Type(s)

- 1862 Extension
- 1890 Extension

4. Associated Knowledge Area(s)

- {NO DATA ENTERED}

Outcome #6

1. Outcome Target

Improved business environment

2. Outcome Type : Change in Knowledge Outcome Measure

2009 : 0	**2010 :** 0	**2011 :** 0	**2012 :** 0	**2013 :** 0

3. Associated Institute Type(s)

- 1862 Extension
- 1890 Extension

4. Associated Knowledge Area(s)

- {NO DATA ENTERED}

Outcome #7

1. Outcome Target

improved business management practices

2. Outcome Type : Change in Knowledge Outcome Measure

2009 : 0	**2010 :** 0	**2011 :** 0	**2012 :** 0	**2013 :** 0

3. Associated Institute Type(s)

- 1862 Extension
- 1890 Extension

4. Associated Knowledge Area(s)

- {NO DATA ENTERED}

V(J). Planned Program (External Factors)

1. External Factors which may affect Outcomes

- Competing Public priorities
- Appropriations changes
- Government Regulations
- Competing Programatic Challenges
- Natural Disasters (drought,weather extremes,etc.)
- Populations changes (immigration,new cultural groupings,etc.)
- Public Policy changes
- Economy

Description

Florida is a state located in the tropics. Natural disasters such as tropical storms and hurricanes are common annual occurrences in this state. Severe weather conditions such as droughts frequently led to large-scale fires. We also have other weather extremes such as floods leading to large scale damage especially along the coastal regions. All of these can have serious effects on Florida communities.

Changing government regulations and population changes can impact outcomes of Extension programs. For example the increased urban building in rural counties is impacting population changes that are causing new challenges that may require different programming priorities. Communities are also

usceptible to changes in the economy which can change and increase competing public priorities.

Changes in state, county and federal appropriations can also affect the outcomes of Extension programs in the area of healthy communities.

V(K). Planned Program (Evaluation Studies and Data Collection)

1. Evaluation Studies Planned

- During (during program)
- Comparison between locales where the program operates and sites without program intervention
- After Only (post program)
- Before-After (before and after program)
- Retrospective (post program)
- Case Study
- Comparisons between program participants (individuals,group,organizations) and non-participants
- Comparisons between different groups of individuals or program participants experiencing different levels of program intensity.
- Time series (multiple points before and after program)

Description

The Florida land-grant college understands the value of evaluation in our annual program plan. Methods of evaluation are included as part of the annual faculty activity plan of work and report of accomplishment process (unifas). This information is collected as part of the logic model used in our Florida system and will be available for the CSREES reports of accomplishment on a yearly basis.

2. Data Collection Methods

- Telephone
- Portfolio Reviews
- Sampling
- Structured
- Journals
- Case Study
- Observation
- Tests
- Unstructured
- Whole population
- On-Site
- Mail

Description

The Florida land-grant colleges use acceptable forms of qualitative and quantitative data collection methods.

V(A). Planned Program (Summary)

Program #7

1. Name of the Planned Program

Promoting professional development activities designed to enhance organizational efficiency and effectiveness

2. Brief summary about Planned Program

Florida Landgrant faculty need the opportunity for personal improvement through planned programs designed to enhance organizational efficiency and effectiveness through participantion in:

- •Program development, implementation and evaluation
- •Professional development
- •Faculty orientation and training
- •Effective communication and technology use
- •Personal and organizational health
- •Administration and leadership

3. Program existence : Intermediate (One to five years)

4. Program duration : Long-Term (More than five years)

5. Expending formula funds or state-matching funds : Yes

6. Expending other than formula funds or state-matching funds : No

V(B). Program Knowledge Area(s)

1. Program Knowledge Areas and Percentage

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
604	Marketing and Distribution Practices	10%	10%	10%	
610	Domestic Policy Analysis	10%	10%	10%	
802	Human Development and Family Well-Being	10%	10%	10%	
803	Sociological and Technological Change Affecting Individuals, Familie	10%	10%	10%	
805	Community Institutions, Health, and Social Services	10%	10%	10%	
806	Youth Development	10%	10%	10%	
901	Program and Project Design, and Statistics	10%	10%	10%	
902	Administration of Projects and Programs	20%	20%	20%	
903	Communication, Education, and Information Delivery	10%	10%	10%	
	Total	100%	100%	100%	

V(C). Planned Program (Situation and Scope)

1. Situation and priorities

The UF/IFAS Extension Service (CES) is a large and dynamic organization consisting of local, regional, and state educators, administrators, and support professionals. As such, its personnel needs are diverse, extensive, and changing. This is particularly true at the local level where over 360 (2004) county faculty work across multiple program areas with adults and youth. Like many other organizations, the rate of turnover in CES is a concern as an average of 25-30 new county faculty are hired each year. In addition, a large majority of new CES faculty at both the county and state levels have limited professional experience and academic preparation in the process dimensions that are fundamental to the success of Florida CES (UF/IFAS CES Professional Development Task Force, 1998).Technical, interpersonal, and programming skills are necessary to ensure the effectiveness of Extension program development, delivery, and accountability. An organization with knowledge development and education as its base must have an effective process in place to continually develop its own intellectual capital (Van Buren, 2001). Professional development opportunities that reflect relevant organizational needs will prepare new faculty members to assess customer needs – then develop, deliver, evaluate and revise educational program effort. Veteran professionals will enhance skills in delivering relevant programs for citizens in Florida and elsewhere.

2. Scope of the Program

- In-State Extension
- Integrated Research and Extension
- Multistate Extension
- Multistate Integrated Research and Extension

V(D). Planned Program (Assumptions and Goals)

1. Assumptions made for the Program

•People will be motivated by internal workshops and other educational activities to learn/change
•Information on best practices shows that these approaches work well for employees of Florida Extension
•Changes suggested in activities related to this program will improve quality of life for Extension faculty and staff

2. Ultimate goal(s) of this Program

Improved delivery of Extension programs
Improved procedures and techniques to evaluate Extension programs
Improved faculty and staff satisfaction
Improved competencies of Extension faculty and staff through inservice training and other professional learning opportunities

V(E). Planned Program (Inputs)

1. Estimated Number of professional FTE/SYs to be budgeted for this Program

Year	Extension		Research	
	1862	1890	1862	1890
2009	8.0	0.0	0.0	0.0
2010	8.0	0.0	0.0	0.0
2011	8.0	0.0	0.0	0.0
2012	8.0	0.0	0.0	0.0
2013	8.0	0.0	0.0	0.0

V(F). Planned Program (Activity)

1. Activity for the Program

• Conduct workshops and meetings
•Deliver services
•Develop products, curriculum, resources
•Provide training
•provide counseling
•Make assessments
•work with the media
•develop partnerships

2. Type(s) of methods to be used to reach direct and indirect contacts

Extension	
Direct Methods	Indirect Methods
• Demonstrations • Education Class • Group Discussion • Workshop	• Web sites • Newsletters

• Other 1 (telephone calls) • One-on-One Intervention	

3. Description of targeted audience

Administrators
County Faculty and Staff

V(G). Planned Program (Outputs)

1. Standard output measures

Target for the number of persons(contacts) to be reached through direct and indirect contact methods

	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Year	Target	Target	Target	Target
2009	64000	2500000	0	0
2010	64000	2500000	0	0
2011	64000	2500000	0	0
2012	64000	2500000	0	0
2013	64000	2500000	0	0

2. (Standard Research Target) Number of Patent Applications Submitted

Expected Patent Applications

2009 :0 **2010 :**0 **2011 :** 0 **2012 :**0 **2013 :**0

3. Expected Peer Review Publications

Year	Research Target	Extension Target	Total
2009	0	15	0
2010	0	20	0
2011	0	25	0
2012	0	30	0
2013	0	0	0

V(H). State Defined Outputs

1. Output Target

- {NO DATA ENTERED}

{NO DATA ENTERED} {NO DATA ENTERED} {NO DATA ENTERED} {NO DATA ENTERED} {NO DATA ENTERED}

V(I). State Defined Outcome

O. No	Outcome Name
1	Improved delivery of Extension programs
2	Improved procedures and techniques to evaluate Extension programs
3	Improved faculty and staff satisfaction
4	Improved competencies of Extension faculty and staff through inservice training and other professional learning opportunities

Outcome #1

1. Outcome Target

Improved delivery of Extension programs

2. Outcome Type : Change in Knowledge Outcome Measure

2009 :0	**2010 :** 0	**2011 :** 0	**2012 :**0	**2013 :** 0

3. Associated Institute Type(s)

•1862 Extension
•1890 Extension

4. Associated Knowledge Area(s)

- {NO DATA ENTERED}

Outcome #2

1. Outcome Target

Improved procedures and techniques to evaluate Extension programs

2. Outcome Type : Change in Knowledge Outcome Measure

2009 :0	**2010 :** 0	**2011 :** 0	**2012 :**0	**2013 :** 0

3. Associated Institute Type(s)

•1862 Extension
•1890 Extension

4. Associated Knowledge Area(s)

- {NO DATA ENTERED}

Outcome #3

1. Outcome Target

Improved faculty and staff satisfaction

2. Outcome Type : Change in Knowledge Outcome Measure

2009 :0	**2010 :** 0	**2011 :** 0	**2012 :**0	**2013 :** 0

3. Associated Institute Type(s)

•1862 Extension
•1890 Extension

4. Associated Knowledge Area(s)

- {NO DATA ENTERED}

Outcome #4

1. Outcome Target

Improved competencies of Extension faculty and staff through inservice training and other professional learning opportunities

2. Outcome Type : Change in Knowledge Outcome Measure

2009 :0	**2010 :** 0	**2011 :** 0	**2012 :**0	**2013 :** 0

3. Associated Institute Type(s)

•1862 Extension
•1890 Extension

4. Associated Knowledge Area(s)

- {NO DATA ENTERED}

V(J). Planned Program (External Factors)

1. External Factors which may affect Outcomes

- Appropriations changes
- Economy
- Public Policy changes
- Government Regulations
- Competing Public priorities
- Natural Disasters (drought,weather extremes,etc.)
- Populations changes (immigration,new cultural groupings,etc.)
- Competing Programatic Challenges

Description

Any changes in appropriations could impact Extension profession development activities. Although promoting professional development is important the first line is always providing educational programs in critical need areas to Florida's population.

V(K). Planned Program (Evaluation Studies and Data Collection)

1. Evaluation Studies Planned

- Case Study
- During (during program)
- Before-After (before and after program)
- Time series (multiple points before and after program)
- After Only (post program)

Description

The Florida land-grant college understands the value of evaluation in our annual program plan. Methods of evaluation are included as part of the annual faculty activity plan of work and report of accomplishment process (unifas). This information is collected as part of the logic model used in our Florida system and will be available for the CSREES reports of accomplishment on a yearly basis.

2. Data Collection Methods

- Tests
- Whole population
- Mail
- Case Study
- Unstructured
- Structured
- Sampling
- Portfolio Reviews
- Observation
- Telephone
- On-Site
- Journals

Description

The Florida land-grant colleges use acceptable forms of qualitative and quantitative data collection methods.

V(A). Planned Program (Summary)

Program #8

1. Name of the Planned Program

Natural Resources and Environment--research

2. Brief summary about Planned Program

This planned program includes research in the areas of :

- Landscape and Turf-grass management
- Landscape conservation and ecology
- Consumer horticulture--people, plants and environment
- Natural resources and environment
- Soil, plant, water and nutrient relationships
- Forestry
- Management and range resources

Tourism is the number one source of revenue in Florida follow second by agriculture. Tourists come to Florida primarily because of the unique tropical landscape and coastline. Florida soil and water are essential to supporting the infrastructure and providing nutrients necessary to produce some of the leading products produced in Florida agriculture including forestry products and consumer-related horticultural plants. For example, Florida is a major producer of green house plants and other ornamentals.

3. Program existence : Intermediate (One to five years)

4. Program duration : Long-Term (More than five years)

5. Expending formula funds or state-matching funds : Yes

6. Expending other than formula funds or state-matching funds : No

V(B). Program Knowledge Area(s)

1. Program Knowledge Areas and Percentage

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
101	Appraisal of Soil Resources	10%	10%	10%	
102	Soil, Plant, Water, Nutrient Relationships	10%	10%	10%	
111	Conservation and Efficient Use of Water	10%	10%	10%	
121	Management of Range Resources	10%	10%	10%	
122	Management and Control of Forest and Range Fires	5%	5%	5%	
123	Management and Sustainability of Forest Resources	5%	5%	5%	
124	Urban Forestry	5%	5%	5%	
125	Agroforestry	5%	5%	5%	
131	Alternative Uses of Land	5%	5%	5%	
132	Weather and Climate	10%	10%	10%	
133	Pollution Prevention and Mitigation	5%	5%	5%	
134	Outdoor Recreation	5%	5%	5%	
135	Aquatic and Terrestrial Wildlife	5%	5%	5%	
136	Conservation of Biological Diversity	5%	5%	5%	
141	Air Resource Protection and Management	5%	5%	5%	

	Total	100%	100%	100%	

V(C). Planned Program (Situation and Scope)

1. Situation and priorities

Florida's population growth and associated pressure on land, water, and natural resources of Florida in order to sustain the natural systems pose difficult choices. Research in the area of natural resources and environment addresses the use of soil, water, forest and range resources, natural resources and air and helps to provide factual information and direction. These projects can range from aquatic life to the conservation and efficient use of water within the environment. Some research areas of interest include:

Landscape and Turf-grass Management - pro-vides research that will ensure the successful establishment of landscape plants and turf-grass without polluting the environment or wasting resources. These projects range from the proper use of fertil-izer in the landscape to the fate of pesticides on golf courses.

The Environmental Horticulture Program addresses the use of ornamental plants and turf-grasses for home and commercial land-scapes and for beautification in the home and office. Today, teach-ing, research and extension programs blend current day recommen-dations with the need to maintain and enhance our environment and preserve our natural resources. Florida faces many challenges in the future with efficient water use and prevention of runoff, produc-tion of a broad range of plant material for distribution world-wide and the need for highly qualified individuals to fill critical industry jobs.

Landscape Conservation and Ecology – Florida, by virtue of its size, diversity, geographic location and multiple climatic zones provides unique opportunities for modeling a sustainable horticul-tural industry in subtropical and tropical regions throughout the world. The components of the success of this model are develop-ment of appropriate propagation and production techniques and introduction of new plants to the industry. Research to develop micropropagation techniques has led to rapid availability of sea oats and wetland plants for beach and landscape restoration. An ad-ditional component, invasive plant evaluation, is being addressed for existing plants and new plant introductions.

Consumer Horticulture-People, Plants and the Envi-ronment – research has been identifying and producing environmentally sound landscape and gardening practices for the citizens of Florida in order to sustain the natural beauty and protect the natural resources of Florida, and to promote quality of life for residents and tourists.

Natural Resources and Environment: Florida's population growth and associated pressures on land, water, and natural systems pose difficult policy choices for public officials. Environmental and resource problems and policies affect agriculture and Florida's rural communities. The need for research increases as the competition between agricultural and nonagricultural users of land and water in-tensifies. These conflicting issues are clearly part of the management challenge in commercial agriculture. Natural resource and environ-mental economics, including marine economics, are the primary subject matter for research projects in this area.

Soil, Plant, Water and Nutrient Relationships

Both Pb and arsenic contamination in soils and groundwater has been a concern for the public due to the extensive contamination and toxicity to humans. Some studies in this area were conducted to determine the feasibility of using chemical (P-induced Pb immobilization) and biological (plant-based phytoextraction) methods in cleaning up metal contaminants soils and groundwater.

Forestry

Agroecosystems, especially small-scale produc-tion systems in the southeastern United States, are challenged as never before with natural resource management problems. According to USDA Census of Agriculture (2002), 88 percent of farms in Florida are considered small farms (annual sales less than $250,000), 84 percent of which are individually or family owned; but they constitute 56 percent of total agricultural income in the state. Similarly, out of the 6.6 million hectares (16.3 million acres) of forestlands in Florida, 52 percent are non-industrial private lands. Clearly, small farms and timber operations are significant drivers of the state's economy. These small-scale operations are under increasing pressures – if not threats – caused by various changes. The increasing impact of a rapidly urbanizing landscape on the wildland-urban interface creates significant changes in ecosystem characteristics such as increased fire danger, changes in water drainage patterns leading to soil erosion and flooding, and fragmentation of wildlife habitat. Agricultural non-point source pollution is a significant cause of stream and lake contamina-tion

and prevents attainment of water quality goals in the Clean Water Act. The problem of phosphorus (P) loss from soil is a major concern in fertilized agricultural and forestry enterprises, particularly in coarse-textured, poorly drained soils of the south-east, where drainage water ultimately mixes with surface water. The potential for P loss from fertilized pastures resulting in water quality degradation is a particularly serious issue. Faced with these consequences of rapid land-use changes, research related to the small-farm com-munity of the Southeast is under pressure identify land manage-ment practices that are economically and ecologically sustainable. Integrated systems such as agroforestry that provide economic advantages of diversified production as well a&

2. Scope of the Program

- Multistate Research
- Multistate Integrated Research and Extension
- In-State Research

V(D). Planned Program (Assumptions and Goals)

1. Assumptions made for the Program

•Improvements provided by these research projects will improve the quality of life for Florida residents
•Improvements provided by these research projects will improve the environment
•Information provided by these research projects will improve the economic well-being of Florida residents

2. Ultimate goal(s) of this Program

Improve methods for appraisal of soil resources
Improve soil, water and nutrient relationships
Improve the management of saline and sodic soils and salinity
Increase protection of soil from harmful effects of natural elements
Improve conservation and efficient use of water
Increase watershed protection and management
Improve methods for managing range resources
Improve mangement and control of forest and range fires
Improve management and sustainability of forest resource
Improve urban forestry
Improve Florida agroforestry
Identify alternative uses of land
Increase knowledge related to weather and climate
Improved pollution prevention techniques and mitigation
Improve methods of protecting aquatic and terrestrial wildlife environment
Improve conservation of biological diversity
Increase air resource protection and management

V(E). Planned Program (Inputs)

1. Estimated Number of professional FTE/SYs to be budgeted for this Program

Year	Extension		Research	
	1862	1890	1862	1890
2009	0.0	0.0	61.0	0.0
2010	0.0	0.0	61.5	0.0
2011	0.0	0.0	62.0	0.0
2012	0.0	0.0	62.1	0.0
2013	0.0	0.0	0.0	0.0

V(F). Planned Program (Activity)

1. Activity for the Program

•Conduct Research Experiments
•Construct Research Facilities
•Partnering

2. Type(s) of methods to be used to reach direct and indirect contacts

Extension	
Direct Methods	**Indirect Methods**
• Demonstrations • Workshop • Group Discussion • One-on-One Intervention • Education Class	• Web sites • Newsletters

3. Description of targeted audience

homeowners
roducers/growers
olicy regulators
visitors to the state

V(G). Planned Program (Outputs)

1. Standard output measures

Target for the number of persons(contacts) to be reached through direct and indirect contact methods

	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Year	Target	Target	Target	Target
2009	0	0	0	0
2010	0	0	0	0
2011	0	0	0	0
2012	0	0	0	0
2013	0	0	0	0

2. (Standard Research Target) Number of Patent Applications Submitted

Expected Patent Applications

2009 : 1 **2010 :** 1 **2011 :** 1 **2012 :** 1 **2013 :** 0

3. Expected Peer Review Publications

Year	Research Target	Extension Target	Total
2009	155	0	0
2010	160	0	0
2011	165	0	0
2012	170	0	0
2013	0	0	0

V(H). State Defined Outputs

1. Output Target

- {NO DATA ENTERED}

{NO DATA ENTERED} {NO DATA ENTERED} {NO DATA ENTERED} {NO DATA ENTERED} {NO DATA ENTERED}

V(I). State Defined Outcome

O. No	Outcome Name
1	Improve methods for appraisal of soil resources
2	Improve soil, water and nutrient relationships
3	Improve the management of saline and sodic soils and salinity
4	Increase protection of soil from harmful effects of natural elements
5	Improve conservation and efficient use of water
6	Increase watershed protection and management
7	Improve methods for managing range resources
8	Improve mangement and control of forest and range fires
9	Improve management and sustainability of forest resource
10	Improve urban forestry
11	Improve Florida agroforestry
12	Identify alternative uses of land
13	Increase knowledge related to weather and climate
14	Improved pollution prevention techniques and mitigation
15	Improve methods of protecting aquatic and terrestrial wildlife environment
16	Improve conservation of biological diversity
17	Increase air resource protection and management

Outcome #1

1. Outcome Target

Improve methods for appraisal of soil resources

2. Outcome Type : Change in Knowledge Outcome Measure

2009 : 0	**2010 :** 0	**2011 :** 0	**2012 :** 0	**2013 :** 0

3. Associated Institute Type(s)

•1862 Research

4. Associated Knowledge Area(s)

- 101 - Appraisal of Soil Resources

Outcome #2

1. Outcome Target

Improve soil, water and nutrient relationships

2. Outcome Type : Change in Knowledge Outcome Measure

2009 : 0	**2010 :** 0	**2011 :** 0	**2012 :** 0	**2013 :** 0

3. Associated Institute Type(s)

•1862 Research

4. Associated Knowledge Area(s)

- 102 - Soil, Plant, Water, Nutrient Relationships

Outcome #3

1. Outcome Target

Improve the management of saline and sodic soils and salinity

2. Outcome Type : Change in Knowledge Outcome Measure

2009 : 0	**2010 :** 0	**2011 :** 0	**2012 :** 0	**2013 :** 0

3. Associated Institute Type(s)

•1862 Research

4. Associated Knowledge Area(s)

- 102 - Soil, Plant, Water, Nutrient Relationships

Outcome #4

1. Outcome Target

Increase protection of soil from harmful effects of natural elements

2. Outcome Type : Change in Knowledge Outcome Measure

2009 : 0	**2010 :** 0	**2011 :** 0	**2012 :** 0	**2013 :** 0

3. Associated Institute Type(s)

•1862 Research

4. Associated Knowledge Area(s)

- 102 - Soil, Plant, Water, Nutrient Relationships

Outcome #5

1. Outcome Target

Improve conservation and efficient use of water

2. Outcome Type : Change in Knowledge Outcome Measure

2009 :0	**2010 :** 0	**2011 :** 0	**2012 :**0	**2013 :** 0

3. Associated Institute Type(s)

•1862 Research

4. Associated Knowledge Area(s)

- 111 - Conservation and Efficient Use of Water

Outcome #6

1. Outcome Target

Increase watershed protection and management

2. Outcome Type : Change in Knowledge Outcome Measure

2009 :0	**2010 :** 0	**2011 :** 0	**2012 :**0	**2013 :** 0

3. Associated Institute Type(s)

•1862 Research

4. Associated Knowledge Area(s)

- 111 - Conservation and Efficient Use of Water

Outcome #7

1. Outcome Target

Improve methods for managing range resources

2. Outcome Type : Change in Knowledge Outcome Measure

2009 :0	**2010 :** 0	**2011 :** 0	**2012 :**0	**2013 :** 0

3. Associated Institute Type(s)

•1862 Research

4. Associated Knowledge Area(s)

- 121 - Management of Range Resources

Outcome #8

1. Outcome Target

Improve mangement and control of forest and range fires

2. Outcome Type : Change in Knowledge Outcome Measure

2009 :0	**2010 :** 0	**2011 :** 0	**2012 :**0	**2013 :** 0

3. Associated Institute Type(s)

•1862 Research

4. Associated Knowledge Area(s)

- 122 - Management and Control of Forest and Range Fires

Outcome #9

1. Outcome Target

Improve management and sustainability of forest resource

2. Outcome Type : Change in Knowledge Outcome Measure

2009 : 0	**2010 :** 0	**2011 :** 0	**2012 :** 0	**2013 :** 0

3. Associated Institute Type(s)

•1862 Research

4. Associated Knowledge Area(s)

- 123 - Management and Sustainability of Forest Resources

Outcome #10

1. Outcome Target

Improve urban forestry

2. Outcome Type : Change in Knowledge Outcome Measure

2009 : 0	**2010 :** 0	**2011 :** 0	**2012 :** 0	**2013 :** 0

3. Associated Institute Type(s)

•1862 Research

4. Associated Knowledge Area(s)

- 124 - Urban Forestry

Outcome #11

1. Outcome Target

Improve Florida agroforestry

2. Outcome Type : Change in Knowledge Outcome Measure

2009 : 0	**2010 :** 0	**2011 :** 0	**2012 :** 0	**2013 :** 0

3. Associated Institute Type(s)

•1862 Research

4. Associated Knowledge Area(s)

- 125 - Agroforestry

Outcome #12

1. Outcome Target

Identify alternative uses of land

2. Outcome Type : Change in Knowledge Outcome Measure

2009 : 0	**2010 :** 0	**2011 :** 0	**2012 :** 0	**2013 :** 0

3. Associated Institute Type(s)

•1862 Research

4. Associated Knowledge Area(s)

- 131 - Alternative Uses of Land

Outcome #13

1. Outcome Target

Increase knowledge related to weather and climate

2. Outcome Type : Change in Knowledge Outcome Measure

2009 :	2010 :	2011 :	2012 :	2013 :
0	0	0	0	0

3. Associated Institute Type(s)

•1862 Research

4. Associated Knowledge Area(s)

- 132 - Weather and Climate

Outcome #14

1. Outcome Target

Improved pollution prevention techniques and mitigation

2. Outcome Type : Change in Knowledge Outcome Measure

2009 :	2010 :	2011 :	2012 :	2013 :
0	0	0	0	0

3. Associated Institute Type(s)

•1862 Research

4. Associated Knowledge Area(s)

- 133 - Pollution Prevention and Mitigation

Outcome #15

1. Outcome Target

Improve methods of protecting aquatic and terrestrial wildlife environment

2. Outcome Type : Change in Knowledge Outcome Measure

2009 :	2010 :	2011 :	2012 :	2013 :
0	0	0	0	0

3. Associated Institute Type(s)

•1862 Research

4. Associated Knowledge Area(s)

- 135 - Aquatic and Terrestrial Wildlife

Outcome #16

1. Outcome Target

Improve conservation of biological diversity

2. Outcome Type : Change in Knowledge Outcome Measure

2009 :	2010 :	2011 :	2012 :	2013 :
0	0	0	0	0

3. Associated Institute Type(s)

•1862 Research

4. Associated Knowledge Area(s)

- 136 - Conservation of Biological Diversity

Outcome #17

1. Outcome Target

Increase air resource protection and management

2. Outcome Type : Change in Knowledge Outcome Measure

2009 :0 **2010 :** 0 **2011 :** 0 **2012 :**0 **2013 :** 0

3. Associated Institute Type(s)

•1862 Research

4. Associated Knowledge Area(s)

- 141 - Air Resource Protection and Management

V(J). Planned Program (External Factors)

1. External Factors which may affect Outcomes

- Economy
- Competing Public priorities
- Populations changes (immigration,new cultural groupings,etc.)
- Government Regulations
- Appropriations changes
- Natural Disasters (drought,weather extremes,etc.)
- Competing Programatic Challenges
- Public Policy changes

Description

Florida is a state located in the tropics. Natural disasters such as tropical storms and hurricanes are common annual occurrences in this state. Severe weather conditions such as droughts frequently led to large-scale fires. Florida also has other weather extremes such as floods leading to large scale damage especially along the coastal regions.

Florida has three international shipping ports: Miami, Jacksonville and Tampa. These cities all have international airports. Along with this we have over 53 million tourists visiting from around the world. It has been estimated that this international influx into Florida has made us the entry point of one new invasive pest, plant or disease each week. Any of this could be an external factor affecting land-grant research outcomes.

Changes may occur because of:

•
The loss of test sites from storm damage

•
An invasive species that requires priority

•
Changes in public priorities

•
Changes in state, county and federal appropriations

•
Changes in governmental regulations

•
Loss of public or private funding opportunities

V(K). Planned Program (Evaluation Studies and Data Collection)

1. Evaluation Studies Planned

- Retrospective (post program)
- Time series (multiple points before and after program)
- During (during program)
- Comparisons between program participants (individuals,group,organizations) and non-participants
- Comparison between locales where the program operates and sites without program intervention
- After Only (post program)
- Before-After (before and after program)
- Case Study
- Comparisons between different groups of individuals or program participants experiencing different levels of program intensity.

Description

Florida IFAS/research understands the importance of evaluating projects to provide scientifically accurate information and recommendations. Accepted research guidelines and procedures are followed.

2. Data Collection Methods

- Sampling
- Tests
- Whole population
- Case Study
- Mail
- Telephone
- Observation
- Journals
- On-Site
- Portfolio Reviews
- Structured
- Unstructured

Description

Florida IFAS/research uses acceptable forms of qualitative and quantitative data collection methods.

V(A). Planned Program (Summary)

Program #9

1. Name of the Planned Program

Plants and Their Systems-research

2. Brief summary about Planned Program

- •Biological Control of pests affecting plants
- •Agronomy
- •Water management and plant nutrition
- •Biotechnology, plant breeding and new crop development
- •plant production management
- •Horticulture
- •Plant product quality

3. Program existence : Intermediate (One to five years)

4. Program duration : Long-Term (More than five years)

5. Expending formula funds or state-matching funds : Yes

6. Expending other than formula funds or state-matching funds : No

V(B). Program Knowledge Area(s)

1. Program Knowledge Areas and Percentage

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
101	Appraisal of Soil Resources	5%	5%	5%	
201	Plant Genome, Genetics, and Genetic Mechanisms	10%	10%	10%	
202	Plant Genetic Resources	5%	5%	5%	
203	Plant Biological Efficiency and Abiotic Stresses Affecting Plants	5%	5%	5%	
204	Plant Product Quality and Utility (Preharvest)	10%	10%	10%	
205	Plant Management Systems	10%	10%	10%	
206	Basic Plant Biology	5%	5%	5%	
211	Insects, Mites, and Other Arthropods Affecting Plants	10%	10%	10%	
212	Pathogens and Nematodes Affecting Plants	10%	10%	10%	
213	Weeds Affecting Plants	10%	10%	10%	
214	Vertebrates, Mollusks, and Other Pests Affecting Plants	5%	5%	5%	
215	Biological Control of Pests Affecting Plants	10%	10%	10%	
216	Integrated Pest Management Systems	5%	5%	5%	
	Total	100%	100%	100%	

V(C). Planned Program (Situation and Scope)

1. Situation and priorities

Plants and their systems include research in the areas of plant production and plant protection. Without plant life there could

be no agriculture, and the systematic production and utilization of a major group of plants – a keystone of agriculture. Florida IFAS research is responsible for investigating and reporting finds necessary to ensure that this keystone remains strong, dynamic, relevant and intact. The size and diversity of the domestic industry and the world-wide importance of fruits and vegetables in human nutrition and economic development related to plants in landscape emphasize the need for consolidation of resources to accomplish this purpose. Some areas of research that are included and use Hatch funds are:

Biological Control of Pests Affecting Plants

The use of plant pathogens as bioherbicides has been a feasible method of weed control in several cases. Two registered bioherbicides, Collego and DeVine, are sold in the United States. Development and use of bioherbicides can help to diversify weed control options, supplement chemical herbicides, and provide an alternative to methyl bromide. Several projects studies the development of several bioherbicide agents shown to be effective in small-scale and noncommercial trials.

Agronomy

The main aim of Agronomy research in Florida is to discover, develop, evaluate and disseminate knowledge and information necessary to support the agronomic-related industries of the State and nation, and to promote and enhance the production and utilization of agronomic commodities and the management of pest plant species for the benefit of society.

Water Management and Plant Nutrition – Research in this area is identifying, developing and disseminating environmentally and economically sound technolo-gies that will increase production and utilization efficiencies

as well as protect or improve environmental quality. Research is providing significant results leading to water conservation in nurseries, land-scapes and on golf courses. New research is addressing the water and fertilizer requirements of turf-grasses and landscape plants.

Biotechnology, Plant Breeding and New Crop Develop-ment – Through research IFAS scientists are striving to develop horticultural characteristics, disease and host/plant resistance through classical genetics and molecular techniques, allowing the creation of marketable products for consumers. Today, the floral biotechnology program is among the leading programs nationally and internationally.

Plant Production Management – Through the work of research plant production management is a source of sound research-based information being made available to the professional horticultural industry, the scientific community and the consumer/student. These projects are viewed as leading in crop production and physiology information and will set an example for the industry in environmen-tally safe practices.

Horticulture

In the area of horticulture, research is solving immediate technical problems facing the fruit and vegetable industries. They are developing new information, materials and techniques to increase the efficiency of production, harvest and post-harvest handling. Their mission is to develop basic information on the genetics, growth, development and senescence of these crops through a continuous reservoir of research in breeding and genetics, biotechnology and molecular biology, biochemistry, and physiology that is at the forefront of knowledge applicable immediately or in the future.

Plant Product Quality

In this area plants such as strawberry cultivars are being developed that improve quality characteristics. This is especially important in Florida where strawberries are an important crop.

2. Scope of the Program

- Integrated Research and Extension
- Multistate Research
- Multistate Integrated Research and Extension
- In-State Research

V(D). Planned Program (Assumptions and Goals)

1. Assumptions made for the Program

- Improvements provided by these research projects will improve Plants and their systems
- Improvements provided by these research projects will improve the environment
- Information provided by these research projects will improve the economic well-being of Florida residents

2. Ultimate goal(s) of this Program

•Development and use of bioherbicides can help to diversify weed control options, supplement chemical herbicides, and provide an alternative to methyl bromide

•Discover, develop, evaluate and disseminate knowledge and information necessary to support the agronomic-related industries of the State and nation,

•Promote and enhance the production and utilization of agronomic commodities and the management of pest plant species for the benefit of society.

•Developing and disseminating environmentally and economically sound technolo-gies related to water management and plant nutrition that will increase production and utilization efficiencies

•Develop horticultural characteristics, disease and host/plant resistance through classical genetics and molecular techniques, allowing the creation of marketable products for consumers

•Research and develop crop production and physiology information and will set an example for the industry in environmen-tally safe practices.

•Research and solve immediate technical problems facing the fruit and vegetable industries including the development of new information, materials and techniques to increase the efficiency of production, harvest and post-harvest handling

•Develop new food plant cultivars that have improved quality characteristics.

V(E). Planned Program (Inputs)

1. Estimated Number of professional FTE/SYs to be budgeted for this Program

Year	Extension		Research	
	1862	1890	1862	1890
2009	0.0	0.0	156.4	0.0
2010	0.0	0.0	156.8	0.0
2011	0.0	0.0	157.0	0.0
2012	0.0	0.0	157.2	0.0
2013	0.0	0.0	0.0	0.0

V(F). Planned Program (Activity)

1. Activity for the Program

•
Conduct Research Experiments

•
Partnering

2. Type(s) of methods to be used to reach direct and indirect contacts

Extension	
Direct Methods	**Indirect Methods**
• Demonstrations • Education Class • One-on-One Intervention • Workshop • Group Discussion	• Newsletters • Web sites

3. Description of targeted audience

Florida citizens with an interest in plants and plant science
May include among others:
•growers
•producers
•general public

V(G). Planned Program (Outputs)

1. Standard output measures

Target for the number of persons(contacts) to be reached through direct and indirect contact methods

	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Year	Target	Target	Target	Target
2009	0	0	0	0
2010	0	0	0	0
2011	0	0	0	0
2012	0	0	0	0
2013	0	0	0	0

2. (Standard Research Target) Number of Patent Applications Submitted

Expected Patent Applications

2009 : 1 **2010 :** 1 **2011 :** 1 **2012 :** 1 **2013 :** 0

3. Expected Peer Review Publications

Year	Research Target	Extension Target	Total
2009	205	0	0
2010	210	0	0
2011	215	0	0
2012	220	0	0
2013	0	0	0

V(H). State Defined Outputs

1. Output Target

- {NO DATA ENTERED}

{NO DATA ENTERED} {NO DATA ENTERED} {NO DATA ENTERED} {NO DATA ENTERED} {NO DATA ENTERED}

V(I). State Defined Outcome

O. No	Outcome Name
1	Development and use of bioherbicides can help to diversify weed control options, supplement chemical herbicides, and provide an alternative to methyl bromide
2	Discover, develop, evaluate and disseminate knowledge and information necessary to support the agronomic-related industries of the State and nation,
3	Promote and enhance the production and utilization of agronomic commodities and the management of pest plant species for the benefit of society.
4	Developing and disseminating environmentally and economically sound technolo-gies related to water management and plant nutrition that will increase production and utilization efficiencies
5	Develop horticultural characteristics, disease and host/plant resistance through classical genetics and molecular techniques, allowing the creation of marketable products for consumers
6	Research and develop crop production and physiology information and will set an example for the industry in environmen-tally safe practices.
7	Research and solve immediate technical problems facing the fruit and vegetable industries including the development of new information, materials and techniques to increase the efficiency of production, harvest and post-harvest handling
8	Develop new food plant cultivars that have improved quality characteristics.

Outcome #1

1. Outcome Target

Development and use of bioherbicides can help to diversify weed control options, supplement chemical herbicides, and provide an alternative to methyl bromide

2. Outcome Type : Change in Knowledge Outcome Measure

2009 :0	**2010 :** 0	**2011 :** 0	**2012 :**0	**2013 :** 0

3. Associated Institute Type(s)

•1862 Research

4. Associated Knowledge Area(s)

- 212 - Pathogens and Nematodes Affecting Plants
- 213 - Weeds Affecting Plants

Outcome #2

1. Outcome Target

Discover, develop, evaluate and disseminate knowledge and information necessary to support the agronomic-related industries of the State and nation,

2. Outcome Type : Change in Knowledge Outcome Measure

2009 :0	**2010 :** 0	**2011 :** 0	**2012 :**0	**2013 :** 0

3. Associated Institute Type(s)

•1862 Research

4. Associated Knowledge Area(s)

- 205 - Plant Management Systems

Outcome #3

1. Outcome Target

Promote and enhance the production and utilization of agronomic commodities and the management of pest plant species for the benefit of society.

2. Outcome Type : Change in Knowledge Outcome Measure

2009 :0	**2010 :** 0	**2011 :** 0	**2012 :**0	**2013 :** 0

3. Associated Institute Type(s)

•1862 Research

4. Associated Knowledge Area(s)

- 205 - Plant Management Systems
- 215 - Biological Control of Pests Affecting Plants
- 216 - Integrated Pest Management Systems

Outcome #4

1. Outcome Target

Developing and disseminating environmentally and economically sound technolo-gies related to water management and plant nutrition that will increase production and utilization efficiencies

2. Outcome Type : Change in Knowledge Outcome Measure

2009 :	2010 :	2011 :	2012 :	2013 :
0	0	0	0	0

3. Associated Institute Type(s)

•1862 Extension

4. Associated Knowledge Area(s)

- 101 - Appraisal of Soil Resources
- 205 - Plant Management Systems

Outcome #5

1. Outcome Target

Develop horticultural characteristics, disease and host/plant resistance through classical genetics and molecular techniques, allowing the creation of marketable products for consumers

2. Outcome Type : Change in Knowledge Outcome Measure

2009 :	2010 :	2011 :	2012 :	2013 :
0	0	0	0	0

3. Associated Institute Type(s)

•1862 Research

4. Associated Knowledge Area(s)

- 201 - Plant Genome, Genetics, and Genetic Mechanisms
- 202 - Plant Genetic Resources
- 203 - Plant Biological Efficiency and Abiotic Stresses Affecting Plants
- 205 - Plant Management Systems

Outcome #6

1. Outcome Target

Research and develop crop production and physiology information and will set an example for the industry in environmen-tally safe practices.

2. Outcome Type : Change in Knowledge Outcome Measure

2009 :	2010 :	2011 :	2012 :	2013 :
0	0	0	0	0

3. Associated Institute Type(s)

•1862 Research

4. Associated Knowledge Area(s)

- 101 - Appraisal of Soil Resources
- 201 - Plant Genome, Genetics, and Genetic Mechanisms
- 202 - Plant Genetic Resources
- 203 - Plant Biological Efficiency and Abiotic Stresses Affecting Plants
- 206 - Basic Plant Biology

Outcome #7

1. Outcome Target

Research and solve immediate technical problems facing the fruit and vegetable industries including the development of new

information, materials and techniques to increase the efficiency of production, harvest and post-harvest handling

2. Outcome Type : Change in Knowledge Outcome Measure

2009 :0	**2010 :** 0	**2011 :** 0	**2012 :**0	**2013 :** 0

3. Associated Institute Type(s)

•1862 Research

4. Associated Knowledge Area(s)

- 204 - Plant Product Quality and Utility (Preharvest)
- 205 - Plant Management Systems

Outcome #8

1. Outcome Target

Develop new food plant cultivars that have improved quality characteristics.

2. Outcome Type : Change in Knowledge Outcome Measure

2009 :0	**2010 :** 0	**2011 :** 0	**2012 :**0	**2013 :** 0

3. Associated Institute Type(s)

•1862 Research

4. Associated Knowledge Area(s)

- 201 - Plant Genome, Genetics, and Genetic Mechanisms
- 202 - Plant Genetic Resources
- 206 - Basic Plant Biology

V(J). Planned Program (External Factors)

1. External Factors which may affect Outcomes

- Government Regulations
- Public Policy changes
- Competing Programatic Challenges
- Natural Disasters (drought,weather extremes,etc.)
- Populations changes (immigration,new cultural groupings,etc.)
- Economy
- Competing Public priorities
- Appropriations changes

Description

Florida is a state located in the tropics. Natural disasters such as tropical storms and hurricanes are common annual occurrences in this state. Severe weather conditions such as droughts frequently led to large-scale fires. Florida also has other weather extremes such as floods leading to large scale damage especially along the coastal regions.

Florida has three international shipping ports: Miami, Jacksonville and Tampa. These cities all have international airports. Along with this we have over 53 million tourists visiting from around the world. It has been estimated that this international influx into Florida has made us the entry point of one new invasive pest, plant or disease each week. Any of this could be an external factor affecting land-grant research outcomes.

Changes may occur because of:

•The loss of test sites from storm damage
•An invasive species that requires priority

•Changes in public priorities
•Changes in state, county and federal appropriations
•Changes in governmental regulations
•Loss of public or private funding opportunities

V(K). Planned Program (Evaluation Studies and Data Collection)

1. Evaluation Studies Planned

- Case Study
- Time series (multiple points before and after program)
- Retrospective (post program)
- Comparison between locales where the program operates and sites without program intervention
- During (during program)
- Comparisons between program participants (individuals,group,organizations) and non-participants
- After Only (post program)
- Before-After (before and after program)
- Comparisons between different groups of individuals or program participants experiencing different levels of program intensity.

Description

Florida IFAS/research understands the importance of evaluating projects to provide scientifically accurate information and recommendations. Accepted research guidelines and procedures are followed.

2. Data Collection Methods

- Whole population
- Portfolio Reviews
- On-Site
- Structured
- Tests
- Observation
- Telephone
- Unstructured
- Case Study
- Sampling
- Mail

Description

Florida IFAS/research uses acceptable forms of qualitative and quantitative data collection methods.

V(A). Planned Program (Summary)

Program #10

1. Name of the Planned Program

Animals and their Systems--research

2. Brief summary about Planned Program

- Reproduction performance
- Nutrient utilization in animals
- Animal physiological Process

3. Program existence : Intermediate (One to five years)

4. Program duration : Long-Term (More than five years)

5. Expending formula funds or state-matching funds : Yes

6. Expending other than formula funds or state-matching funds : No

V(B). Program Knowledge Area(s)

1. Program Knowledge Areas and Percentage

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
301	Reproductive Performance of Animals	10%	10%	10%	
302	Nutrient Utilization in Animals	10%	10%	10%	
303	Genetic Improvement of Animals	10%	10%	10%	
304	Animal Genome	5%	5%	5%	
305	Animal Physiological Processes	10%	10%	10%	
306	Environmental Stress in Animals	5%	5%	5%	
307	Animal Management Systems	10%	10%	10%	
308	Improved Animal Products (Before Harvest)	5%	5%	5%	
311	Animal Diseases	10%	10%	10%	
312	External Parasites and Pests of Animals	10%	10%	10%	
313	Internal Parasites in Animals	5%	5%	5%	
314	Toxic Chemicals, Poisonous Plants, Naturally Occuring Toxins, and (	5%	5%	5%	
315	Animal Welfare/Well-Being and Protection	5%	5%	5%	
	Total	100%	100%	100%	

V(C). Planned Program (Situation and Scope)

1. Situation and priorities

The primary mission of the IFAS statewide animal sciences program in the area of research is to provide critical information

needed to assist the livestock industries of Florida to achieve efficient production by contributing to the solution of livestock production problems through research. This mission is accomplished through the integration of research both at the University of Florida and research facilities such as the Department of Animal Sciences, the Range Cattle Research and Education Center (Ona), the North Florida Research and Education Center (Marianna), the Subtropical agricultural

Research Station, USDA-ARS (Brooksville) and the sixty-seven county extension facilities. Research in the area of animals includes issues related to animal production and protection. Included in this area but not inclusive are:

Reproduction Performance

The advancement in vitro embryo technologies are still quite inefficient due to associated problems with early embryonic loss, large offspring syndrome, and postnatal mortality . The purpose of one project in Florida is twofold: 1) to devise rapid methods for assessing viability in preimplantation bovine embryos for increased survival; and 2) determine how in vitro culture conditions effect the expression of Insulin-like Growth Factor (IGF) family members.

Nutrient utilization in animals

Management practices, diets fed and shortened dry periods are being evaluated in several projects involving dairy cows. The purpose of one of the studies is to examine the effectiveness of available technology, feeding management, and short dry periods to improve the feed intake of dairy cows around calving. The purpose is to improve their intake of feed, reduce their health problems and allow high milk production after calving. The project also examines whether it is possible to speed-up the dry-off of mammary tissue by using estrogen at the time of dry-off and thereby reduce the standard 60-day dry period in half.

2. Scope of the Program

- Multistate Research
- In-State Research
- Integrated Research and Extension
- Multistate Integrated Research and Extension

V(D). Planned Program (Assumptions and Goals)

1. Assumptions made for the Program

Research will uncover critical information needed to assist the livestock industries of Florida to achieve efficient production by contributing to the solutions of livestock production problems .

2. Ultimate goal(s) of this Program

Improve reproductive performance of animals
Improve nutrient utilization in animals
Improve genetics in animals
Increase knowledge in area of animal genome
Improve animal physiological processes
Reduce environmental stress in animals
Improve animal management systems
Improve animal products (before harvest)
Increase knowledge and decrease incidence of animal diseases
Reduce instances of external parasites and pests of animals
Reduce internal parasites in animals
Identify and reduce toxic chemicals, poisonous plants, naturally occurring toxins, and other hazards affecting animals
Increase animal welfare,/well-being and protection through improved BMPs

V(E). Planned Program (Inputs)

1. Estimated Number of professional FTE/SYs to be budgeted for this Program

Year	Extension		Research	
	1862	1890	1862	1890
2009	0.0	0.0	33.0	0.0
2010	0.0	0.0	33.5	0.0
2011	0.0	0.0	34.0	0.0
2012	0.0	0.0	34.2	0.0
2013	0.0	0.0	0.0	0.0

V(F). Planned Program (Activity)

1. Activity for the Program

•Conduct research experiments
•Partnering

2. Type(s) of methods to be used to reach direct and indirect contacts

Extension	
Direct Methods	Indirect Methods
• Group Discussion • One-on-One Intervention • Workshop • Education Class • Demonstrations	• Web sites • Newsletters

3. Description of targeted audience

residents of Florida interested in animals and animal science. This includes
•Growers//Ranchers
•Producers/packaging
•General public
•Government officials
•Scientists

V(G). Planned Program (Outputs)

1. Standard output measures

Target for the number of persons(contacts) to be reached through direct and indirect contact methods

	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Year	Target	Target	Target	Target
2009	0	0	0	0
2010	0	0	0	0
2011	0	0	0	0
2012	0	0	0	0
2013	0	0	0	0

2. (Standard Research Target) Number of Patent Applications Submitted

Expected Patent Applications

2009 : 1 **2010 :** 1 **2011 :** 1 **2012 :** 1 **2013 :** 0

3. Expected Peer Review Publications

Year	Research Target	Extension Target	Total
2009	135	0	0
2010	140	0	0
2011	145	0	0
2012	150	0	0
2013	0	0	0

V(H). State Defined Outputs

1. Output Target

- {NO DATA ENTERED}

{NO DATA ENTERED} {NO DATA ENTERED} {NO DATA ENTERED} {NO DATA ENTERED} {NO DATA ENTERED}

V(I). State Defined Outcome

O. No	Outcome Name
1	Improve reproductive performance of animals
2	Improve nutrient utilization in animals
3	Improve genetics in animals
4	Increase knowledge in area of animal genome
5	Improve animal physiological processes
6	Reduce environmental stress in animals
7	Improve animal management systems
8	Improve animal products (before harvest)
9	Increase knowledge and decrease incidence of animal diseases
10	Reduce instances of external parasites and pests of animals
11	Reduce internal parasites in animals
12	Identify and reduce toxic chemicals, poisonous plants, naturally occurring toxins, and other hazards affecting animals
13	Increase animal welfare,/well-being and protection through improved BMPs

Outcome #1

1. Outcome Target

Improve reproductive performance of animals

2. Outcome Type : Change in Knowledge Outcome Measure

2009 : 0	**2010 :** 0	**2011 :** 0	**2012 :** 0	**2013 :** 0

3. Associated Institute Type(s)

•1862 Research

4. Associated Knowledge Area(s)

- 301 - Reproductive Performance of Animals

Outcome #2

1. Outcome Target

Improve nutrient utilization in animals

2. Outcome Type : Change in Knowledge Outcome Measure

2009 : 0	**2010 :** 0	**2011 :** 0	**2012 :** 0	**2013 :** 0

3. Associated Institute Type(s)

•1862 Research

4. Associated Knowledge Area(s)

- 302 - Nutrient Utilization in Animals

Outcome #3

1. Outcome Target

Improve genetics in animals

2. Outcome Type : Change in Knowledge Outcome Measure

2009 : 0	**2010 :** 0	**2011 :** 0	**2012 :** 0	**2013 :** 0

3. Associated Institute Type(s)

•1862 Research

4. Associated Knowledge Area(s)

- 303 - Genetic Improvement of Animals

Outcome #4

1. Outcome Target

Increase knowledge in area of animal genome

2. Outcome Type : Change in Knowledge Outcome Measure

2009 : 0	**2010 :** 0	**2011 :** 0	**2012 :** 0	**2013 :** 0

3. Associated Institute Type(s)

•1862 Research

4. Associated Knowledge Area(s)

- 304 - Animal Genome

Outcome #5

1. Outcome Target

Improve animal physiological processes

2. Outcome Type : Change in Knowledge Outcome Measure

2009 : 0	**2010 :** 0	**2011 :** 0	**2012 :** 0	**2013 :** 0

3. Associated Institute Type(s)

•1862 Research

4. Associated Knowledge Area(s)

- 305 - Animal Physiological Processes

Outcome #6

1. Outcome Target

Reduce environmental stress in animals

2. Outcome Type : Change in Knowledge Outcome Measure

2009 : 0	**2010 :** 0	**2011 :** 0	**2012 :** 0	**2013 :** 0

3. Associated Institute Type(s)

•1862 Research

4. Associated Knowledge Area(s)

- 306 - Environmental Stress in Animals

Outcome #7

1. Outcome Target

Improve animal management systems

2. Outcome Type : Change in Knowledge Outcome Measure

2009 : 0	**2010 :** 0	**2011 :** 0	**2012 :** 0	**2013 :** 0

3. Associated Institute Type(s)

•1862 Research

4. Associated Knowledge Area(s)

- 307 - Animal Management Systems

Outcome #8

1. Outcome Target

Improve animal products (before harvest)

2. Outcome Type : Change in Knowledge Outcome Measure

2009 : 0	**2010 :** 0	**2011 :** 0	**2012 :** 0	**2013 :** 0

3. Associated Institute Type(s)

•1862 Research

4. Associated Knowledge Area(s)

- 308 - Improved Animal Products (Before Harvest)

Outcome #9

1. Outcome Target

Increase knowledge and decrease incidence of animal diseases

2. Outcome Type : Change in Knowledge Outcome Measure

2009 :	2010 :	2011 :	2012 :	2013 :
0	0	0	0	0

3. Associated Institute Type(s)

•1862 Research

4. Associated Knowledge Area(s)

- 311 - Animal Diseases

Outcome #10

1. Outcome Target

Reduce instances of external parasites and pests of animals

2. Outcome Type : Change in Knowledge Outcome Measure

2009 :	2010 :	2011 :	2012 :	2013 :
0	0	0	0	0

3. Associated Institute Type(s)

•1862 Research

4. Associated Knowledge Area(s)

- 312 - External Parasites and Pests of Animals

Outcome #11

1. Outcome Target

Reduce internal parasites in animals

2. Outcome Type : Change in Knowledge Outcome Measure

2009 :	2010 :	2011 :	2012 :	2013 :
0	0	0	0	0

3. Associated Institute Type(s)

•1862 Research

4. Associated Knowledge Area(s)

- 313 - Internal Parasites in Animals

Outcome #12

1. Outcome Target

Identify and reduce toxic chemicals, poisonous plants, naturally occurring toxins, and other hazards affecting animals

2. Outcome Type : Change in Knowledge Outcome Measure

2009 :	2010 :	2011 :	2012 :	2013 :
0	0	0	0	0

3. Associated Institute Type(s)

•1862 Research

4. Associated Knowledge Area(s)

- 314 - Toxic Chemicals, Poisonous Plants, Naturally Occuring Toxins, and Other Hazards Affecting Animals

Outcome #13

1. Outcome Target

Increase animal welfare,/well-being and protection through improved BMPs

2. Outcome Type : Change in Knowledge Outcome Measure

2009 :0 **2010 :** 0 **2011 :** 0 **2012 :**0 **2013 :** 0

3. Associated Institute Type(s)

•1862 Research

4. Associated Knowledge Area(s)

- 305 - Animal Physiological Processes
- 307 - Animal Management Systems
- 315 - Animal Welfare/Well-Being and Protection

V(J). Planned Program (External Factors)

1. External Factors which may affect Outcomes

- Appropriations changes
- Competing Public priorities
- Populations changes (immigration,new cultural groupings,etc.)
- Government Regulations
- Competing Programatic Challenges
- Economy
- Natural Disasters (drought,weather extremes,etc.)
- Public Policy changes

Description

Florida is a state located in the tropics. Natural disasters such as tropical storms and hurricanes are common annual occurrences in this state. Severe weather conditions such as droughts frequently led to large-scale fires. Florida also has other weather extremes such as floods leading to large scale damage especially along the coastal regions.

Florida has three international shipping ports: Miami, Jacksonville and Tampa. These cities all have international airports. Along with this we have over 53 million tourists visiting from around the world. It has been estimated that this international influx into Florida has made us the entry point of one new invasive pest, plant or disease each week. Any of this could be an external factor affecting land-grant research outcomes.

Changes may occur because of:

•The loss of test sites from storm damage
•An invasive species that requires priority
•Changes in public priorities
•Changes in state, county and federal appropriations
•Changes in governmental regulations

V(K). Planned Program (Evaluation Studies and Data Collection)

1. Evaluation Studies Planned

- After Only (post program)
- During (during program)
- Case Study
- Comparison between locales where the program operates and sites without program intervention
- Before-After (before and after program)
- Time series (multiple points before and after program)
- Retrospective (post program)

Description

Florida IFAS/research understands the importance of evaluating projects to provide scientifically accurate information and recommendations. Accepted research guidelines and procedures are followed.

2. Data Collection Methods

- Telephone
- Mail
- Structured
- Tests
- Case Study
- Observation
- Journals
- On-Site
- Unstructured
- Portfolio Reviews
- Sampling
- Whole population

Description

Florida IFAS/research uses acceptable forms of qualitative and quantitative data collection methods.

V(A). Planned Program (Summary)

Program #11

1. Name of the Planned Program

Food and Non-Food Products: Development, Processing, Quality, and Delivery--research

2. Brief summary about Planned Program

- •Post-harvest/post production
- •Food and Agriculture
- •New and Improved Food Processing Technologies
- •New and Improved Non-Food Products and Processes

3. Program existence : Intermediate (One to five years)

4. Program duration : Long-Term (More than five years)

5. Expending formula funds or state-matching funds : Yes

6. Expending other than formula funds or state-matching funds : No

V(B). Program Knowledge Area(s)

1. Program Knowledge Areas and Percentage

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
501	New and Improved Food Processing Technologies	20%	20%	20%	
502	New and Improved Food Products	20%	20%	20%	
503	Quality Maintenance in Storing and Marketing Food Products	20%	20%	20%	
504	Home and Commercial Food Service	5%	5%	5%	
511	New and Improved Non-Food Products and Processes	15%	15%	15%	
512	Quality Maintenance in Storing and Marketing Non-Food Products	20%	20%	20%	
	Total	100%	100%	100%	

V(C). Planned Program (Situation and Scope)

1. Situation and priorities

This area addresses the needs in the development, processing, quality and delivery of food and non-food products. In this area Hatch research projects have been conducted in both areas. Some examples include:

Postharvest/Post Production

Research in this area address the needs of the foli-age and floriculture market chain. Currently the best interior evalu-ation facilities in the US are located within IFAS and IFAS has the only department with a program nationally addressing whole plant longevity on a broad scale. Major emphasis is placed on research to improve the performance of fresh cut flowers for the consumer.

Food and Agriculture

Florida ranks as a major agricultural state and often leads the nation in the production of a wide variety of agricultural commodities. Before reaching the consumer, each product moves through a unique marketing channel often involving grading, processing, packaging, transporting, international trade, wholesaling and retailing. The provision of inputs and services to the agricultural sector also involves significant economic activ-ity. Agricultural businesses must cope with increased regulatory pressure, shifting consumer preferences regarding food safety and environmental protection as well as dealing with emerging oppor-tunities through biotechnology. Agribusiness, farm management and production economics, marketing, international trade and competition, and consumer economics are among the subject matter that is the concern of Florida IFAS research.

New and Improved Food Processing Technologies

Value-added by-products research requires strong product utilization and processing industry support to maintain industry prominence in International markets. By-products research allows development of processing and utilization schemes to profitably deal with waste utilization, rather than pay disposal costs.

New and Improved Non-Food Products and Processes

Genetic manipulations to improve ethanol production in Z. mobilis are complicated by enzymes that prevent introduction of foreign DNA into the bacteria. The purpose of some projects in this area is to determine the factors that limit the efficiency of transfer of foreign genes into Z. mobilis and to produce new strains which will be more amenable to genetic engineering which may be used to enhance their fuel ethanol production.

2. Scope of the Program

- Multistate Integrated Research and Extension
- Integrated Research and Extension
- Multistate Research
- In-State Research

V(D). Planned Program (Assumptions and Goals)

1. Assumptions made for the Program

•Improvements provided by these research projects will improve the quality of life for Florida residents
•Improvements provided by these research projects will improve the development, processing, quality and delivery of food and non-food products
•Information provided by these research projects will improve the economic well-being of Florida residents and agricultural industries

2. Ultimate goal(s) of this Program

Develop new and improved food processing techniques
Develop new and improved food products
Improve quality maintance in storing and marketing food products
Develop new and improved non-food products and processes
Develop Quality maintenance methods in storing and marketing non-food products

V(E). Planned Program (Inputs)

1. Estimated Number of professional FTE/SYs to be budgeted for this Program

Year	Extension		Research	
	1862	1890	1862	1890
2009	0.0	0.0	12.0	0.0
2010	0.0	0.0	12.4	0.0
2011	0.0	0.0	12.8	0.0
2012	0.0	0.0	12.9	0.0
2013	0.0	0.0	0.0	0.0

V(F). Planned Program (Activity)

1. Activity for the Program

•Conduct research experiments
•Partner
•Work with stakeholders in processing areas to create and construct research facilities

2. Type(s) of methods to be used to reach direct and indirect contacts

Extension	
Direct Methods	Indirect Methods
• Group Discussion • Demonstrations • Workshop • Education Class • One-on-One Intervention	• Newsletters • Web sites

3. Description of targeted audience

State, national and international stakeholders affected by food and non-food developing, processing, quality and delivery. These may include but are not limited to:

•producers
•regulatory bodies
•consumer groups

V(G). Planned Program (Outputs)

1. Standard output measures

Target for the number of persons(contacts) to be reached through direct and indirect contact methods

	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Year	Target	Target	Target	Target
2009	0	0	0	0
2010	0	0	0	0
2011	0	0	0	0
2012	0	0	0	0
2013	0	0	0	0

2. (Standard Research Target) Number of Patent Applications Submitted

Expected Patent Applications

2009 : 1 **2010 :** 1 **2011 :** 1 **2012 :** 1 **2013 :** 0

3. Expected Peer Review Publications

Year	Research Target	Extension Target	Total
2009	25	0	0
2010	30	0	0
2011	35	0	0
2012	40	0	0
2013	0	0	0

V(H). State Defined Outputs

1. Output Target

- {NO DATA ENTERED}

{NO DATA ENTERED} {NO DATA ENTERED} {NO DATA ENTERED} {NO DATA ENTERED} {NO DATA ENTERED}

V(I). State Defined Outcome

O. No	Outcome Name
1	Develop new and improved food processing techniques
2	Develop new and improved food products
3	Improve quality maintance in storing and marketing food products
4	Develop new and improved non-food products and processes
5	Develop Quality maintenance methods in storing and marketing non-food products

Outcome #1

1. Outcome Target

Develop new and improved food processing techniques

2. Outcome Type : Change in Knowledge Outcome Measure

2009 : 0	**2010 :** 0	**2011 :** 0	**2012 :** 0	**2013 :** 0

3. Associated Institute Type(s)

•1862 Research

4. Associated Knowledge Area(s)

- 501 - New and Improved Food Processing Technologies

Outcome #2

1. Outcome Target

Develop new and improved food products

2. Outcome Type : Change in Knowledge Outcome Measure

2009 : 0	**2010 :** 0	**2011 :** 0	**2012 :** 0	**2013 :** 0

3. Associated Institute Type(s)

•1862 Research

4. Associated Knowledge Area(s)

- 502 - New and Improved Food Products

Outcome #3

1. Outcome Target

Improve quality maintance in storing and marketing food products

2. Outcome Type : Change in Knowledge Outcome Measure

2009 : 0	**2010 :** 0	**2011 :** 0	**2012 :** 0	**2013 :** 0

3. Associated Institute Type(s)

•1862 Research

4. Associated Knowledge Area(s)

- 503 - Quality Maintenance in Storing and Marketing Food Products

Outcome #4

1. Outcome Target

Develop new and improved non-food products and processes

2. Outcome Type : Change in Knowledge Outcome Measure

2009 : 0	**2010 :** 0	**2011 :** 0	**2012 :** 0	**2013 :** 0

3. Associated Institute Type(s)

•1862 Research

4. Associated Knowledge Area(s)

- 511 - New and Improved Non-Food Products and Processes

Outcome #5

1. Outcome Target

Develop Quality maintenance methods in storing and marketing non-food products

2. Outcome Type : Change in Knowledge Outcome Measure

2009 : 0	**2010 :** 0	**2011 :** 0	**2012 :** 0	**2013 :** 0

3. Associated Institute Type(s)

•1862 Research

4. Associated Knowledge Area(s)

- 512 - Quality Maintenance in Storing and Marketing Non-Food Products

V(J). Planned Program (External Factors)

1. External Factors which may affect Outcomes

- Public Policy changes
- Natural Disasters (drought,weather extremes,etc.)
- Government Regulations
- Competing Public priorities
- Populations changes (immigration,new cultural groupings,etc.)
- Appropriations changes
- Economy
- Competing Programatic Challenges

Description

Florida is a state located in the tropics. Natural disasters such as tropical storms and hurricanes are common annual occurrences in this state. Severe weather conditions such as droughts frequently led to large-scale fires. Florida also has other weather extremes such as floods leading to large scale damage especially along the coastal regions.

Florida has three international shipping ports: Miami, Jacksonville and Tampa. These cities all have international airports. Along with this we have over 53 million tourists visiting from around the world. It has been estimated that this international influx into Florida has made us the entry point of one new invasive pest, plant or disease each week. Any of this could be an external factor affecting land-grant research outcomes.

Changes may occur because of:

•The loss of test sites from storm damage
•An invasive species that requires priority
•Changes in public priorities
•Changes in state, county and federal appropriations
•Changes in governmental regulations
•Loss of public or private funding opportunities

V(K). Planned Program (Evaluation Studies and Data Collection)

1. Evaluation Studies Planned

- Before-After (before and after program)
- Case Study
- Time series (multiple points before and after program)
- During (during program)
- Retrospective (post program)
- Comparisons between program participants (individuals,group,organizations) and non-participants
- Comparisons between different groups of individuals or program participants experiencing different levels of program intensity.
- After Only (post program)

Description

Florida IFAS/research understands the importance of evaluating projects to provide scientifically accurate information and recommendations. Accepted research guidelines and procedures are followed.

2. Data Collection Methods

- Structured
- Mail
- Whole population
- Observation
- Journals
- Portfolio Reviews
- On-Site
- Case Study
- Tests
- Sampling
- Telephone
- Unstructured

Description

Florida IFAS/research uses a variety of acceptable forms of qualitative and quantitative data collection methods.

V(A). Planned Program (Summary)

Program #12

1. Name of the Planned Program

Economics, Markets and Policy--research

2. Brief summary about Planned Program

- •Economics of Agricultural production and farm management
- •Marketing and distribution practices
- •International trade and development

3. Program existence : Intermediate (One to five years)

4. Program duration : Long-Term (More than five years)

5. Expending formula funds or state-matching funds : Yes

6. Expending other than formula funds or state-matching funds : No

V(B). Program Knowledge Area(s)

1. Program Knowledge Areas and Percentage

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
601	Economics of Agricultural Production and Farm Management	10%	10%	10%	
603	Market Economics	20%	20%	20%	
604	Marketing and Distribution Practices	20%	20%	20%	
605	Natural Resource and Environmental Economics	10%	10%	10%	
606	International Trade and Development	10%	10%	10%	
607	Consumer Economics	10%	10%	10%	
609	Economic Theory and Methods	10%	10%	10%	
610	Domestic Policy Analysis	10%	10%	10%	
	Total	100%	100%	100%	

V(C). Planned Program (Situation and Scope)

1. Situation and priorities

Economic development generally refers to targeted programs designed to enable people to raise overall per capita incomes or to improve circumstances for specific disadvantaged populations. The emphasis of the area is the enhancement of people's capacity to acquire and manage re-sources effectively, understand markets and policy related to these elements. Presently, economic transitions underway in rural Florida result in pockets of economic disadvantage. Public and private managers must cope with the costs of economic change and must be able to influence both the pattern and pace of growth. Insights are sometimes obtained from problem-solving work in other locations that may be applicable in Florida. Rural economic development, in-ternational development, economic impact analysis, domestic policy analysis and agricultural labor subject matter are also of interest. Some specific areas where Hatch research is taking place in IFAS include:

Economics of Agricultural Production and Farm Management

Citrus remains the most important crop produced in Florida. Florida citrus producers face a number of challenges including increased foreign competition, adoption of new technology including mechanical harvesting, and threats from invasive pests. This intent of one project in this area is to provide economic analysis of the issues confronting Florida including assessment of the competitive position of the citrus industry.

Marketing and Distribution Practices

Understanding more about the factors that influence consumers' subjective perceptions about food consumption will allow agribusinesses, agricultural producers, and policy makers to respond more effectively to consumer concerns. One Hatch project is designed to improve our understanding of the effects of consumer tastes and preferences, including food safety, on Florida agriculture.

International Trade and Development

International trade and development of new markets is important to Florida's agricultural industries. This includes the understanding and development of policy necessary for improved development of international trade. One project seeks to evaluate how the relative economic size of Caribbean Basin countries will condition their ability to realize the full economic benefits of trade liberalization and integration efforts in the Western Hemisphere.

2. Scope of the Program

- Multistate Research
- Multistate Integrated Research and Extension
- Integrated Research and Extension
- In-State Research

V(D). Planned Program (Assumptions and Goals)

1. Assumptions made for the Program

•Improvements provided by these research projects will improve the quality of life for Florida residents

•Improvements provided by these research projects will improve markets and policies for Florida stakeholders involved in international sales of Florida agricultural products

•Information provided by these research projects will improve the economic well-being of Florida residents

2. Ultimate goal(s) of this Program

•Provide economic analysis of issues confronting Florida stakeholders including assessment of the competitive position of Florida crops in the international market place.

•Research factors that influence consumers' subjective perceptions about food consumption that will allow agribusiness, ag producers, and policy makers to respond more effectivley to consumer and producer concerns

•Understand and develop policy necessary for improved development of international trade

V(E). Planned Program (Inputs)

1. Estimated Number of professional FTE/SYs to be budgeted for this Program

Year	Extension		Research	
	1862	1890	1862	1890
2009	0.0	0.0	12.4	0.0
2010	0.0	0.0	12.8	0.0
2011	0.0	0.0	13.0	0.0
2012	0.0	0.0	13.1	0.0
2013	0.0	0.0	0.0	0.0

V(F). Planned Program (Activity)

1. Activity for the Program

•

Conduct Research Experiments

•

Partnering on an international level

2. Type(s) of methods to be used to reach direct and indirect contacts

Extension	
Direct Methods	Indirect Methods
• Demonstrations • Education Class • Workshop • One-on-One Intervention • Group Discussion	• Newsletters • Web sites

3. Description of targeted audience

international:

•Agribusiness

•producers

•policy makers (county, state, regional, national, international

V(G). Planned Program (Outputs)

1. Standard output measures

Target for the number of persons(contacts) to be reached through direct and indirect contact methods

	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Year	Target	Target	Target	Target
2009	0	0	0	0
2010	0	0	0	0
2011	0	0	0	0
2012	0	0	0	0
2013	0	0	0	0

2. (Standard Research Target) Number of Patent Applications Submitted

Expected Patent Applications

2009 : 1 **2010 :** 1 **2011 :** 1 **2012 :** 1 **2013 :** 0

3. Expected Peer Review Publications

Year	Research Target	Extension Target	Total
2009	55	0	0
2010	60	0	0
2011	65	0	0
2012	70	0	0
2013	0	0	0

V(H). State Defined Outputs

1. Output Target

- {NO DATA ENTERED}

{NO DATA ENTERED} {NO DATA ENTERED} {NO DATA ENTERED} {NO DATA ENTERED} {NO DATA ENTERED}

V(I). State Defined Outcome

O. No	Outcome Name
1	Provide economic analysis of issues confronting Florida stakeholders including assessment of the competitive position of Florida crops in the international market place.
2	Research factors that influence consumers' subjective perceptions about food consumption that will allow agribusiness, ag producers, and policy makers to respond more effectivley to consumer and producer concerns
3	Understand and develop policy necessary for improved development of international trade

Outcome #1

1. Outcome Target

Provide economic analysis of issues confronting Florida stakeholders including assessment of the competitive position of Florida crops in the international market place.

2. Outcome Type : Change in Knowledge Outcome Measure

2009 : 0	**2010 :** 0	**2011 :** 0	**2012 :** 0	**2013 :** 0

3. Associated Institute Type(s)

•1862 Research

4. Associated Knowledge Area(s)

- 601 - Economics of Agricultural Production and Farm Management
- 603 - Market Economics
- 604 - Marketing and Distribution Practices
- 605 - Natural Resource and Environmental Economics
- 606 - International Trade and Development
- 607 - Consumer Economics

Outcome #2

1. Outcome Target

Research factors that influence consumers' subjective perceptions about food consumption that will allow agribusiness, ag producers, and policy makers to respond more effectivley to consumer and producer concerns

2. Outcome Type : Change in Knowledge Outcome Measure

2009 : 0	**2010 :** 0	**2011 :** 0	**2012 :** 0	**2013 :** 0

3. Associated Institute Type(s)

•1862 Research

4. Associated Knowledge Area(s)

- 601 - Economics of Agricultural Production and Farm Management
- 603 - Market Economics
- 604 - Marketing and Distribution Practices
- 607 - Consumer Economics
- 609 - Economic Theory and Methods
- 610 - Domestic Policy Analysis

Outcome #3

1. Outcome Target

Understand and develop policy necessary for improved development of international trade

2. Outcome Type : Change in Knowledge Outcome Measure

2009 : 0	**2010 :** 0	**2011 :** 0	**2012 :** 0	**2013 :** 0

3. Associated Institute Type(s)

•1862 Research

4. Associated Knowledge Area(s)

- 606 - International Trade and Development
- 609 - Economic Theory and Methods
- 610 - Domestic Policy Analysis

V(J). Planned Program (External Factors)

1. External Factors which may affect Outcomes

- Economy
- Appropriations changes
- Competing Programatic Challenges
- Natural Disasters (drought,weather extremes,etc.)
- Government Regulations
- Public Policy changes

Description

Florida is a state located in the tropics. Natural disasters such as tropical storms and hurricanes are common annual occurrences in this state. Severe weather conditions such as droughts frequently led to large-scale fires. Florida also has other weather extremes such as floods leading to large scale damage especially along the coastal regions.

Florida has three international shipping ports: Miami, Jacksonville and Tampa. These cities all have international airports. Along with this we have over 53 million tourists visiting from around the world. It has been estimated that this international influx into Florida has made us the entry point of one new invasive pest, plant or disease each week. Any of this could be an external factor affecting land-grant research outcomes.

Changes may occur because of:
•The loss of test sites from storm damage
•An invasive species that requires priority
•Changes in public priorities
•Changes in state, county and federal appropriations
•Changes in governmental regulations
•Loss of public or private funding opportunities
•Changes in international policy or trade agreements

V(K). Planned Program (Evaluation Studies and Data Collection)

1. Evaluation Studies Planned

- Retrospective (post program)
- Comparisons between different groups of individuals or program participants experiencing different levels of program intensity.
- Case Study
- After Only (post program)
- Comparison between locales where the program operates and sites without program intervention
- Time series (multiple points before and after program)
- Before-After (before and after program)
- Comparisons between program participants (individuals,group,organizations) and non-participants
- During (during program)

Description

Florida IFAS/research understands the importance of evaluating projects to provide scientifically accurate information and recommendations. Accepted research guidelines and procedures are followed.

2. Data Collection Methods

- Structured
- Case Study
- Unstructured
- Tests
- Whole population
- Sampling
- Portfolio Reviews
- Mail
- Journals
- Telephone
- On-Site
- Observation

Description

Florida IFAS/research uses a variety of acceptable forms of qualitative and quantitative data collection methods.

V(A). Planned Program (Summary)

Program #13

1. Name of the Planned Program

Human Nutrition, Food Safety, and Human Health--research

2. Brief summary about Planned Program

•Human health
•Requirements and function of nutrients and other food components
•Food safety

3. Program existence : Intermediate (One to five years)

4. Program duration : Long-Term (More than five years)

5. Expending formula funds or state-matching funds : Yes

6. Expending other than formula funds or state-matching funds : No

V(B). Program Knowledge Area(s)

1. Program Knowledge Areas and Percentage

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
702	Requirements and Function of Nutrients and Other Food Component	20%	20%	20%	
703	Nutrition Education and Behavior	20%	20%	20%	
712	Protect Food from Contamination by Pathogenic Microorganisms, Pa	20%	20%	20%	
721	Insects and Other Pests Affecting Humans	10%	10%	10%	
722	Zoonotic Diseases and Parasites Affecting Humans	10%	10%	10%	
723	Hazards to Human Health and Safety	20%	20%	20%	
	Total	100%	100%	100%	

V(C). Planned Program (Situation and Scope)

1. Situation and priorities

Research in this area can be divided into three broad categories: food science, human nutrition and human health. Research in the area of human nutrition, food safety, and human health and well-being addresses problems and opportunities important to the food industry and quality of life in Florida and throughout the world. Research projects in the area of human nutrition involve many of the commodities important in Florida, including seafood and aquaculture products, citrus, fresh fruits and vegetables, and dairy products. Other research areas include food safety and microbiology issues, food processing and new method development,

quality and sensory aspects of foods, and composition and chemistry of foods. Research in the area of human nutrition addresses basic and applied aspects of human nutrition in efforts to improve the health and wellness of Floridians and the world population, and includes studies on gene regulation, immu-nity, and women's health. Research areas include the function and biochemistry of micronutrients, the role of water-soluble vitamins in the health of various populations, the effects of phytochemicals and nutrient supplements on health, and the development of education programs for improved nutrition and health. Some Hatch projects include the following areas:

Human Health:

Mosquito-borne pathogens present a significant health risk to Florida residents, domestic animals and wildlife. This project helps identify periods when the risk of disease transmission is unusually high in Florida.

Requirements and Function of Nutrients and Other Food Components

Folate is a vitamin with important health implications. Impaired folate status has been associated with increased risk for birth defects, vascular disease, cancer, and cognitive dysfunction. Studying the relationship between folate status, genetic make-up and chronic disease risk may provide clues for improving human health that can be translated into nutrition education programs for the public.

2. Scope of the Program

- In-State Research
- Integrated Research and Extension
- Multistate Research
- Multistate Integrated Research and Extension

V(D). Planned Program (Assumptions and Goals)

1. Assumptions made for the Program

•Improvements provided by these research projects will improve the quality of life for Florida residents through a better understanding of requirements and functions of nutrients and other food components

•Improvements methods identified by research projects will reduce outbreaks of food pathogens and increase food safety.

•Information provided by these research projects will improve the physical well-being of Florida residents

2. Ultimate goal(s) of this Program

Research in the area of human nutrition, food safety, and human health and well-being addresses problems and opportunities important to the food industry and quality of life in Florida and throughout the world

V(E). Planned Program (Inputs)

1. Estimated Number of professional FTE/SYs to be budgeted for this Program

Year	Extension		Research	
	1862	1890	1862	1890
2009	0.0	0.0	22.0	0.0
2010	0.0	0.0	22.5	0.0
2011	0.0	0.0	23.0	0.0
2012	0.0	0.0	23.2	0.0
2013	0.0	0.0	0.0	0.0

V(F). Planned Program (Activity)

1. Activity for the Program

•

Conduct Research Experiments

•

Partnering

2. Type(s) of methods to be used to reach direct and indirect contacts

Extension	
Direct Methods	**Indirect Methods**
• Group Discussion • One-on-One Intervention • Education Class • Workshop • Demonstrations	• Newsletters • Web sites

3. Description of targeted audience

•Food Industry
•General public
•regulatory agencies

V(G). Planned Program (Outputs)

1. Standard output measures

Target for the number of persons(contacts) to be reached through direct and indirect contact methods

	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Year	Target	Target	Target	Target
2009	0	0	0	0
2010	0	0	0	0
2011	0	0	0	0
2012	0	0	0	0
2013	0	0	0	0

2. (Standard Research Target) Number of Patent Applications Submitted

Expected Patent Applications

2009 : 1 **2010 :** 1 **2011 :** 1 **2012 :** 1 **2013 :** 0

3. Expected Peer Review Publications

Year	Research Target	Extension Target	Total
2009	20	0	0
2010	25	0	0
2011	30	0	0
2012	35	0	0
2013	0	0	0

V(H). State Defined Outputs

1. Output Target

- {NO DATA ENTERED}

{NO DATA ENTERED} {NO DATA ENTERED} {NO DATA ENTERED} {NO DATA ENTERED} {NO DATA ENTERED}

V(I). State Defined Outcome

O. No	Outcome Name
1	Research in the area of human nutrition, food safety, and human health and well-being addresses problems and opportunities important to the food industry and quality of life in Florida and throughout the world

Outcome #1

1. Outcome Target

Research in the area of human nutrition, food safety, and human health and well-being addresses problems and opportunities important to the food industry and quality of life in Florida and throughout the world

2. Outcome Type : Change in Knowledge Outcome Measure

2009 :0 **2010 :** 0 **2011 :** 0 **2012 :**0 **2013 :** 0

3. Associated Institute Type(s)

•1862 Research

4. Associated Knowledge Area(s)

- 702 - Requirements and Function of Nutrients and Other Food Components
- 703 - Nutrition Education and Behavior
- 712 - Protect Food from Contamination by Pathogenic Microorganisms, Parasites, and Naturally Occuring Toxins
- 723 - Hazards to Human Health and Safety

V(J). Planned Program (External Factors)

1. External Factors which may affect Outcomes

- Appropriations changes
- Public Policy changes
- Natural Disasters (drought,weather extremes,etc.)
- Competing Programatic Challenges
- Competing Public priorities
- Populations changes (immigration,new cultural groupings,etc.)
- Government Regulations
- Economy

Description

Florida is a state located in the tropics. Natural disasters such as tropical storms and hurricanes are common annual occurrences in this state. Severe weather conditions such as droughts frequently led to large-scale fires. Florida also has other weather extremes such as floods leading to large scale damage especially along the coastal regions.

Florida has three international shipping ports: Miami, Jacksonville and Tampa. These cities all have international airports. Along with this we have over 53 million tourists visiting from around the world. It has been estimated that this international influx into Florida has made us the entry point of one new invasive pest, plant or disease each week. Any of this could be an external factor affecting land-grant research outcomes.

Changes may occur because of:

•The loss of test sites from storm damage
•An invasive species that requires priority
•Changes in public priorities
•Changes in state, county and federal appropriations
•Changes in governmental regulations
•Loss of public or private funding opportunities

V(K). Planned Program (Evaluation Studies and Data Collection)

1. Evaluation Studies Planned

- Retrospective (post program)
- Case Study
- During (during program)
- Before-After (before and after program)
- Time series (multiple points before and after program)
- Comparison between locales where the program operates and sites without program intervention
- After Only (post program)

Description

Florida IFAS/research understands the importance of evaluating projects to provide scientifically accurate information and recommendations. Accepted research guidelines and procedures are followed.

2. Data Collection Methods

- Case Study
- Sampling
- On-Site
- Tests
- Structured
- Unstructured
- Whole population
- Portfolio Reviews
- Telephone
- Journals
- Observation
- Mail

Description

Florida IFAS/research uses a variety of acceptable forms of qualitative and quantitative data collection methods.

V(A). Planned Program (Summary)

Program #14

1. Name of the Planned Program

Families, Youth. and Communities--research

2. Brief summary about Planned Program

•Youth Development

3. Program existence : Intermediate (One to five years)

4. Program duration : Long-Term (More than five years)

5. Expending formula funds or state-matching funds : Yes

6. Expending other than formula funds or state-matching funds : No

V(B). Program Knowledge Area(s)

1. Program Knowledge Areas and Percentage

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
802	Human Development and Family Well-Being	50%	50%	50%	
806	Youth Development	50%	50%	50%	
	Total	100%	100%	100%	

V(C). Planned Program (Situation and Scope)

1. Situation and priorities

A major strength of the area of families, youth and communities is the diversity of disciplines that operate in collaborative and complementary ways to address issues of importance to individuals, families, and communities. This diversity allows human development to be considered from a broad perspective, giving consideration to the key contextual setting in which people are embedded. These contextual factors include fami-lies, neighborhoods, schools, communities, and extra-community linkages. These elements form the conceptual foundation for the research that takes place in this area.

Youth Development

Some IFAS faculty focus their Hatch research on youth development issues such as crime and violence prevention in public schools. This research has led to the development of a safe school survey and school climate survey model for Florida schools, an analysis of school crime and violence data quality systems, longitudinal stud-ies on trends of youth crime and violence, and research on youth risk prevention program effectiveness. Other youth development research has focused on investigating partnerships that adults and youth form, for the purpose of addressing the goals of a local organization, community, or government entity.

Florida youth and adults expand and learn leadership skills through partnerships that promote community volunteerism, more specifically, engagement in civic governance. The research examines the knowledge, attitudes and skills of youth and adults regarding willingness to be involved in partnerships and how they apply leadership skills in partnerships for community governance.

2. Scope of the Program

- Multistate Research
- Integrated Research and Extension
- Multistate Integrated Research and Extension
- In-State Research

V(D). Planned Program (Assumptions and Goals)

1. Assumptions made for the Program

Through research human development can be considered from a broad perspective, giving consideration to the complex systems in which humans are embedded. These complex systems include families, neighborhoods, schools, communities, the state, the nation and the world.

2. Ultimate goal(s) of this Program

•decrease crime and violence in youth populations

V(E). Planned Program (Inputs)

1. Estimated Number of professional FTE/SYs to be budgeted for this Program

Year	Extension		Research	
	1862	1890	1862	1890
2009	0.0	0.0	0.5	0.0
2010	0.0	0.0	0.6	0.0
2011	0.0	0.0	0.7	0.0
2012	0.0	0.0	0.8	0.0
2013	0.0	0.0	0.0	0.0

V(F). Planned Program (Activity)

1. Activity for the Program

N/A

2. Type(s) of methods to be used to reach direct and indirect contacts

Extension	
Direct Methods	Indirect Methods
• Group Discussion • Education Class • Demonstrations • One-on-One Intervention • Workshop	• Web sites • Newsletters

3. Description of targeted audience

Families
Family support groups
Schools
community leaders
Businesses (public and private_

V(G). Planned Program (Outputs)

1. Standard output measures

Target for the number of persons(contacts) to be reached through direct and indirect contact methods

	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Year	Target	Target	Target	Target
2009	0	0	0	0
2010	0	0	0	0
2011	0	0	0	0
2012	0	0	0	0
2013	0	0	0	0

2. (Standard Research Target) Number of Patent Applications Submitted

Expected Patent Applications

2009 :0 **2010 :**0 **2011 :** 0 **2012 :**0 **2013 :**0

3. Expected Peer Review Publications

Year	Research Target	Extension Target	Total
2009	25	0	0
2010	30	0	0
2011	35	0	0
2012	40	0	0
2013	0	0	0

V(H). State Defined Outputs

1. Output Target

- {NO DATA ENTERED}

{NO DATA ENTERED} {NO DATA ENTERED} {NO DATA ENTERED} {NO DATA ENTERED} {NO DATA ENTERED}

V(I). State Defined Outcome

O. No	Outcome Name
1	Decrease crime and violence in youth populations

Outcome #1

1. Outcome Target

Decrease crime and violence in youth populations

2. Outcome Type : Change in Knowledge Outcome Measure

2009 :	2010 :	2011 :	2012 :	2013 :
0	0	0	0	0

3. Associated Institute Type(s)

•1862 Research

4. Associated Knowledge Area(s)

- 802 - Human Development and Family Well-Being
- 806 - Youth Development

V(J). Planned Program (External Factors)

1. External Factors which may affect Outcomes

- Competing Programatic Challenges
- Populations changes (immigration,new cultural groupings,etc.)
- Competing Public priorities
- Appropriations changes
- Economy
- Government Regulations
- Natural Disasters (drought,weather extremes,etc.)
- Public Policy changes

Description

Florida is a state located in the tropics. Natural disasters such as tropical storms and hurricanes are common annual occurrences in this state. Severe weather conditions such as droughts frequently led to large-scale fires. Florida also has other weather extremes such as floods leading to large scale damage especially along the coastal regions.

Florida has three international shipping ports: Miami, Jacksonville and Tampa. These cities all have international airports. Along with this we have over 53 million tourists visiting from around the world. It has been estimated that this international influx into Florida has made us the entry point of one new invasive pest, plant or disease each week. Any of this could be an external factor affecting land-grant research outcomes. All of these can cause disruption in families that impact research on youth.

Changes may occur because of:
Displacement of subjects
Problem with changing populations because of economy impacts
Chaos and disorder caused by natural and national disasters
Loss of computer systems and data collections

V(K). Planned Program (Evaluation Studies and Data Collection)

1. Evaluation Studies Planned

- During (during program)
- Case Study
- Comparisons between program participants (individuals,group,organizations) and non-participants
- Time series (multiple points before and after program)
- Before-After (before and after program)
- After Only (post program)
- Retrospective (post program)

Description

Florida IFAS/research understands the importance of evaluating projects to provide scientifically accurate information and recommendations. Accepted research guidelines and procedures are followed.

2. Data Collection Methods

- Whole population
- Unstructured
- Structured
- On-Site
- Portfolio Reviews
- Observation
- Case Study
- Tests
- Sampling
- Telephone
- Journals
- Mail

Description

Florida IFAS/Research uses a variety of acceptable forms of qualitative and quantitative data collection methods.